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TIME IN INDIAN PHILOSOPHY

A Collection of Essays

Edited by

HARI SHANKAR PRASAD

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To

my kalyāṇamitra

PROFESSOR N.H. SAMTANI

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Preface

In the *Introduction* to my earlier edited book—*Essays on Time in Buddhism*—I promised to publish another volume under the title, *Time in Indian Philosophy,* consisting of essays on time in non-Buddhist systems, which have already appeared in various journals and books. The motive behind such an attempt is to make these essays, most of which are now inaccesible, available to readers and researchers interested in the problem of time and its discussions in Indian philosophical traditions. The present Volume together with the earlier one and the one which is a revised version of my Ph.D. dissertation, *The Buddhist Philosophy of Time,* submitted to the Australian National University, will, I hope, fulfill this need.

The present collection of essays is the result of an effort of the last 16 years to collect them from their original sources, and to reprint them in the present form. My own researches on the problem of time in Indian philosophical traditions, over this period, have enabled me to write a critical *Introduction* on the various views of time prevalent in the non-Buddhist philosophical schools of thought in India. In my brief *Introduction,* I have endeavoured to analyse and interpret them in a way which helps me reconstruct the philosophy of time as I understand it. Still I cannot claim that I fully comprehend the multi-pronged problem of time discussed in Indian philosophical literature.

I am not the only one who has been perplexed, and will always remain so, while reflecting on time. The more I try to understand this elusive, paradoxical, knotty, formidable and unfathomable issue, the more I find myself helpless, exasperated, and exposed to other unmanageable related issues in this regard. Therefore, I think, it is better to embarrass my readers than to wait for clarity and final solution, and maintain complete silence on the subject under consideration. To understand time in its entirety means to understand everything; and this is, for any human being, an impossible feat to achieve.

The contemporary works on time in the West, such as *The Philosophy of Time* (A Collection of Essays, ed. by R.M. Gale, London, Macmillan, 1968), have been very useful in developing the critical method and philosophical terminology for the treatment of the problem of time.

I am indebted to the authors, editors and publishers for their permission to reprint their works in this Volume.

Department of Philosophy
University of Delhi

Hari Shankar Prasad

The Problem of Time in Indian Philosophy : An Introduction

Hari Shankar Prasad

The concept of time has always been associated with the human experience of the changing phenomena, so much so that time is conceived as the single most co-ordinating factor of all experiences and their interpretations. This gives rise to a belief in its metaphysical reality; a reality which seems to be constitutive of our experiences and thinking. The source of the experience of time is basically the all round change and periodicity in the external world. Thus, the experience of the concomitance of time as a co-ordinating factor with all other experiences and thinking was the main reason of reckoning time in various ways—namely, as cosmic principle, universal cause, God, and as the originator, sustainer and destroyer of the universe. The first conscious reflections on the problem of time, in India, are found in the *Atharvaveda*[1], which gives the descriptions of time in these terms.

Since the dawn of human thinking and reflections on experiences, the Indian mind has been engaged in the search for the meaning, aim and ideal of life. Its all-out effort, motivated by the spiritual urge, was to go beyond the sensible phenomena in order to know their underlying principle. In this process, different philosophical schools of thought came into existence. Because of the openness of their minds, the ancient Indian thinkers in general gave prominence to some

or the other of the four traditional human values. These values are: material or economic value (*artha*), value of sensual pleasure or enjoyment (*kāma*), morality or moral value (*dharma*) and spiritual or soteriological value (*mokṣa*). In the course of the development of thought, most thinkers and their followers, except Cārvāka, undertook the task of pursuing the fourth value, the *summum bonum* of human existence. However, Indian thinkers wrote independent works on each of these values, viz., the *Arthaśāstra* of Kauṭilya, *Kāmasūtra* of Vātsyāyana, various *Dharmaśāstras* and different philosophical texts. But not all of these works are soteriological in nature. It is worth noting here that a literature, such as the *Arthaśāstra* and the *Kāmasūtra*, which did not pursue soteriological end, was short-lived as a school of thought. However, the pursuance and inculcation of the fourth value, i.e. *mokṣa*, became the most sought-after aim in such a way that the seekers in the due course rigorously developed different, and sometimes contradictory, schools or systems of thought, although they had a common goal. This situation arose because of their choice or preference for one set of basic elements to another, and their subsequent methodological approach which gave rise to their different conceptual frameworks, convictions or orientations. Thus it was natural to have different metaphysical systems in India. The elements other than the basic ones of a system were set and interpreted according to the philosophical needs of its framework. This is the reason why the concept of time has resulted in different conceptions.

Despite all these differences, the concept of time was never considered in isolation, because it is impossible to conceive of time independently of the allied concepts of Being and becoming, change and causality, and so on. This explains why we get different conceptions of time in the *Vedas, Upaniṣads, Purāṇas* and the various philosophical schools of Sāṁkhya-Yoga, Nyāya-Vaiśeṣika, Mīmāṁsā, Vedānta, Jainism and Buddhism, and why time is treated differently as real or

unreal, subjective or objective, primary or secondary, physical or psychological, creator or created, interiorized or exteriorized, substantive or attributive, empirical or *a priori*, and so on.

Myths and Images of Time

In the earliest days of human thinking, in India, the discussion about time was guided or determined by certain myths, which were considered atemporal and which were prevalent among the people. The significance of myths lies in the fact that they have always played a very important role in shaping the various conceptions of reality in our cultural and philosophical traditions. They have thus proved to be, in many cases, indicative of truth.

In the *Atharvaveda*[2], time is regarded as the Supreme Ontological Being, Cosmic Power, Principle of Causality, and as Supreme Divinity, in contradistinction of the classificatory Being "when everything in the universe is classified as being, and is placed under Being as the highest class"[3]. To this 'Time', even the supreme creator God, Prajāpati, is subordinate. Time is thus metaphorically considered as the creator of the creator. In other words, even the creator is and has his being in time. This means that whatever has a history, anything other than the cosmic principle as Oneness, is temporal and is talked in the framework of time. Even the cosmic principle as *eternal duration* is understood with reference to time. This is actually the view of those who reflect on time as the cause of everything, i.e., every classificatory being of the universe. These thinkers are technically called *kālacintakas*, *kālavādīns* or *kālakāraṇavādīns*.[4]

The purpose of placing time above even the Supreme God is to remind him of his temporality, and to show that he is not the Supreme Reality. This enlightens him to rise above his vanity and makes him realize that Supreme Reality is

something beyond. This is evident from the contexts in which some of the myths are narrated to gods like Indra as discussed below. Further, such characterization of time is a factor in revealing the Ultimate Reality to gods as well as human beings. Such myths also terrorize them to ponder over their temporal and implicitly evanescent existence, so that they pursue the highest value.

The word used for time, in Indian philosophy, is *kāla* derived from the root *kal* meaning 'to count' or 'to devour'. Thus time is that which is the basis for counting temporal units, such as seconds, hours, days, etc. or it is that which devours all beings as its food. In other words, time matures or scales every being from its birth to death. According to Bhartṛhari[5], *kāla* is so called because it, like the cyclical activities and dynamism of a water-wheel, and being all-pervasive, determines or accounts for the birth, subsistence and destruction of all empirical beings. Because of this function of time, which resembles the function of the creator God, that Kṛṣṇa, in the *Gītā*, has identified himself with time.[6]

The myths of time in different forms, sometimes personified as Supreme Deity and sometimes identified with various gods in their different roles, are found in the *Vedas*[7], *Upaniṣads*[8], *Mahābhārata*[9], *Gītā*[10] and the *Purāṇas*[11], and meant to serve a cultural and philosophical purpose. They are considered primordial and atemporal by modern scholars like Mircea Eliade[12] in the sense that they took their roots in the human minds with their experiences of the phenomena. Since these experiences are undatable and hence atemporal, the myths of time also are likewise atemporal. These myths relate "events which took place *in principio*, at the beginning, in a primordial, atemporal moment, a *sacred time*. This mythical or sacred time is qualitatively different from *profane time*, from the continuous and irreversible time of our everyday, desacralized existence".[13] The mythical time or

sacred time for Eliade is Great Time, the Absolute Time, in which the temporality of events, change and the empirical things, in other words, profane time takes place. The mythical time has the status of true ontological Being, while the profane time has only epistemic status, which vanishes when the narrator of the myth and his audience are projected in the mythical or sacred time. This reminds us of the epistemological and logical approach of Advaita Vedānta in revealing the ultimate reality.

One of the functions of myths is to describe the efficacy of time, and to create its images. In ancient times, rituals and sacrifices (*karma*) were performed in order to "regenerate time by a series of rituals which in a sense reactualize the cosmogony"[14]. Thus *kāla* and *karma* were considered to be the two supreme forces of the universe.[15]

The discussion of the myth of time in the *Brahmavaivartapurāṇa*, which was interpreted by Heinrich Zimmer and Eliade[16], elucidates its function in destroying God Indra's vanity of pride of being in an exalted position. It makes him realize his transitory and temporal character, and the falsity of his pride and position. Indra feels enlightened, transcends his empirical status, and surrenders to the mythical sacred time, which is "equivalent to a revelation of the ultimate reality. And this is a strictly metaphysical reality, accessible only through myths and symbols"[17]. There is another important myth of time characterized as a rotating and dynamic wheel (*cakra*).[18] This symbolizes the cycle of the universe and human existence, and shows that every empirical being is under the wheel of time for its birth, subsistence and death.

Time is very often signified as death.[19] Such signification of myths terrorizes, at least, human being who then tries to seek refuge under the higher reality than time itself. This search leads him to the realization of, or even his identification with, the supreme or ultimate principle of the universe.

Consequently, he transforms his total personality and attitude towards his fellow beings. His behaviour (*karma*)—mental, physical and linguistic—is guided accordingly. Then the law of *karma* is brought in. His good *karmas*, it is maintained, get him rid of the infinitely recurring empirical existences which are intrinsically and ultimately painful in nature. The realization of the ultimate reality and the law of *karma*, in respect of a person, have religious, cultural, and social relevance.

One of the most popular images of time is that of a river. Time, Bhartṛhari[20] says, is ever-flowing like a river. It carries away beings from one state to another, and causes change in their qualities. The river-of-time metaphor in philosophical discourses is found to be untenable, because it is obviously based on non-factual experience of the flow of time. This is mere a feeling which arises from metaphysical confusion or category mistake mediated by metaphors of spatial movements like the flow of a river. It is true that we cannot think of time without some or the other spatial movement, or without associating it with a reality which is spatio-temporally extended. This way of our thinking is determined by the dispositions reposed in our mind by our ordinary linguistic usage. The ordinary language usually dictates a pattern of thought. On analysis, it appears that the spatial metaphor of time is non-factual, and possesses no metaphysical truth. The uncritical approach in selecting the attributes of time on spatial model is clearly a failure to distinguish the difference between the surface appearances of our various linguistic usage. Take, for instance, the two expressions: "The river flows" and "Time flows", which have the same grammatical forms, that is, they have the same surface grammar, but analysis shows that they have a different depth grammar. This is a state of philosophical confusion which arises, according to Wittgenstein[21], because of our inability to take into account this fact of ordinary language.

Further, the notion of the flow of time is absurd, implausible and conceptually incoherent. If time flows on the river model, then time itself has to be taken as consisting of a series of events in a second-order time, a meta-time, against which the flow of time can be understood. This leads to infinite regress. The myths and the images of time thus do not contain any metaphysical truth; they are significant only for the purpose of conveying an indirect or implied meaning, as we saw in the case of the removal of vanity and pride of God Indra.

Unreality of Time in Post-Vedic Period

In the post-Vedic literature, such as the *Upaniṣads* and Vedānta texts, we find a radical departure in thinking about time. In the *Vedas*, the philosophical trend was not very clear, but in the *Upaniṣads* it became monistic which, further, in Gauḍapāda and Śaṁkara took the form of Absolutism. With this change, the status of time as supreme reality also changed. Now it was considered to have a derivative status following the changing phenomena. It was thus treated as subordinate to appearance, not related in any sense to ultimate reality which is timeless. This idea is very vaguely found in the *Atharvaveda*[22] where time is said to flow from the Vessel of Ultimate Dynamic Reality (=*brahman*) which in its unchanging form is timeless, and in its manifest form, i.e., as the cause of the phenomena, is time. In other words, the temporality of changing phenomena gives rise to the notion of time, the experience of which is gained through the spatial periodic movements of the celestial bodies like Sun. At phenomenal level, time is metaphorically said to cook or mature or devour all beings. Here it is time which accounts for the birth, subsistence and death of every being. That is, as long as there is change, there is need of time to account for it. But when the ultimate reality is in its original or primitive state, there is no change and no phenomena, and hence no experience or need of time. In such a reality, time itself is

devoured. This leads to the unreality of time in ultimate sense. This is more evident in Advaita Vedānta of Śaṁkara. In other words, "time is of the essence of the phenomenal world. And since the phenomenal world has no independent reality, time too is not an independent reality"[23].

Time in Advaita Vedānta belongs to the lowest level of reality (*tucchasattā*) which is factually not true, and thus not the subject of factual discourse. Since this so-called reality lacks the status of being, it should be maintained that this level of reality is epistemologically insignificant. But the source of time-consciousness and of time, according to P.T. Raju, is apperception which "is not something different and separate from the I-am. It has no being of its own, when not activated by the I-am. *The present then of time is the presence of the aspect of I-am in apperception,* which collects together past and future into the present. This collecting is done by the memory and anticipation aspects of the I-am in apperception"[24]. This way of time-consciousness, in terms of past, present and future, is a mental event or derived from psychology having reference to consciousness. It is based on the psychological states of remembering, perceiving and anticipating. This is called psychological reduction. Time is thus subjective in the sense that these psychological states take a subject; and wherever there is subject, there is subjectivity. This subject has in its reflective consciousness the awareness of "I-am" through which these states are interrelated, i.e., they are given an order which further requires time to be explained. If time and temporality—past, present and future—are psychological, then temporal or phenomenal becoming is also psychological. The temporal becoming of phenomenal events can, thus, be reduced to mental events. But this psychological reduction of time in Advaita Vedānta serves a very useful purpose in transcending the temporal and in realizing the timeless. In this sense, time is to be meditated upon. T.M.P. Mahadevan writes:

"Meditation on time is recommended as a method for getting beyond time to the timeless reality. The *Maitrāyaṇī-Upaniṣad* mentions time as one of the principal forms of the supreme, immortal, unembodied *Brahman*. It is as a form of *Brahman* that time is to be meditated on".[25]

Subjectivity of Time, Change and Causality

The concepts of time, change and causality are inseparably related to each other in such a way that one requires the other to be understood, but change occupies the central place among them. Epistemologically, change precedes time, but it requires time to be elucidated. The notion of causality arises when there is change in a thing from one event to another, the preceding event as cause and the succeeding event as effect. Now, time is brought in to account for this change and causality. But time as a principle of elucidation is understood only when there is change with causal continuity. The main difference between change and time is that whereas change enters directly into our experience, time does not. The concept of time is actually derived from change. The same is the case with the concept of causality. In philosophical systems of India, the metaphysical position of a system determines the theories of change and causality which in turn determine the theory of time. But in all the philosophical systems of India, even in Buddhism, the underlying essence maintains its identity throughout changes, which are taken as its passing phases or modes.

The Nyāya-Vaiśeṣika realism is compelled to ascribe reality to these modes also, and thus they subscribe to the view of a theory of new creation (*ārambhavāda*) which is their theory of causation. For Sāṁkhya-Yoga, a mode is only a state of the unchanging, underlying and identical essence. It is entailed in its substratum before its coming into existence. Its reality is more epistemological than ontological. The Sāṁkhya-Yoga did not exploit the full implications of their theory of

causation. In some sense, they also subscribe to the reality of these modes, together with the reality of difference and change. It is the Advaita Vedānta of Śaṁkara which took the advantage of its weaknesses, and brought the theory of causation to its logical culmination.

The only plausible explanation of time, change and causality, and the only way of solving the paradoxes and perplexities created by them, according to Advaita Vedānta, is to treat them as epistemologically grounded in the Absolute Dynamic Reality (= *brahman*). This is achieved by maintaining different levels of reality, broadly reduced to Appearance and Reality. Appearance is subjective, while Reality is objective. Change, causality and time are all subjective creations, mere appearances (*vivarta*), a result of our ignorance of the real nature of the ultimate reality. Change and causality have acquired relative reality at empirical level, but time is even lower than that. It is epistemologically non-existent. It is purely a mental or psychological construction, but certainly an indispensable factor in understanding change and causality, or such allied notions as movement, succession, process and experience. Alexander's three features of time—duration in succession, irreversibility and transitiveness[26] —are acceptable at empirical level only. Time's subjective character is clearly comprehensible when on analysis we find it disappearing. Transcendence of time and identification with the underlying reality is simultaneous. The scientifically and philosophically untutored mind of common man does not accept this outcome.

The element of subjectivity or creativity in Advaita Vedānta is the very nature of consciousness, which corrects itself in its critical reflection on its own nature. In Advaita Vedānta and Mādhyamika Buddhism, the process from appearance to reality is more logical or dialectical than psychological. This is achieved through the negation of appearance. But this does

not mean that psychology is absent from these systems. It is strongly at work while conceiving time. Their analysis and conclusion of unreality of time are logical. In the realism of Nyāya-Vaiśeṣika, where time is a substantive reality, and where there is no element of subjectivity at any level, time defies logical analysis. Although they advance *a priori* arguments in support of the reality of time, they are averse to taking time as mind-dependent. Their arguments are *a priori,* because they are not based on empirical grounds which are the very bases of any realism. They establish the reality of time by conceptually analysing the ordinary linguistic usage of such words as past, present, future, succession, simultaneous and non-simultaneous. They take time as the cause of the concepts of these temporal expressions, simply because we need time to elucidate them.[27] They are not at all prepared to admit (sheer because of the compulsion of their system's logic) that these concepts are psychological in their origin. Nyāya-Vaiśeṣika, for classifying beings including time, is heavily dependent on the ordinary linguistic usage (e.g. *lokavyavahāra*). They try to show the cosmic significance of time, but while doing so they are trapped in linguo-centricity and subjectivity. Their approach does not withstand even empirical arguments. It is based on the presupposition that ordinary language contains a metaphysic of mind-independent reals. The result is that the Nyāya-Vaiśeṣika method of conceptual analysis is dictated by ordinary linguistic usage, and thus in the present case they transcend the factual discourse, an attempt which is suicidal for their very realism. To get rid of this predicament, and to defend their realism, they finally make an appeal to Yogic intuition of time, which is supposed to be more reliable than sensory perception. This makes the Nyāya-Vaiśeṣika position even more controversial.

Time and Duration

Both Nyāya-Vaiśeṣika and Jainism talk of duration.[28] They form the concept of duration on the basis of their experience of perceptual or specious present which ranges from one moment to a number of moments. Their notion of present is exemplified in the subsistence of an object, or a course of action like 'cooking' including its whole process. Then they conceive of the absolute and substantive time by extending the specious present in forward as well as backward direction to its extremity on both sides. They also conceive of absolute time as a substratum of the temporal relations, temporal properties and temporal facts which we use in our ordinary language, and which we have found to be psychological in origin. This shows that they admit time as a substantive, and give its descriptions via temporal properties. This is clearly a non-empirical method. Moreover, their notion of duration is fundamentally fallacious, because in that case duration in empirical sense implies changelessness of reality which will then be timeless. Consequently, there will be no time in the absence of change; there will be no events, no happenings, no process, no history, and ultimately no world. The example of 'cooking' denotes a series of successive moments. It is the mind or I-consciousness as a unifying principle which unites the multiplicity of these moments, and presents them as a perceptual duration. Time as an *a priori* explanatory principle of change, etc. is understandable, but time as a substantive absolute reality is a source of philosophical confusions.

Some scholars find similarity between Nyāya and Jaina notion of duration and Bergson's conception of 'Pure duration'. But I see basic differences between them. The following quotation from Bergson's *Time and Free Will* proves this point:

> Pure duration is the form which the succession of our conscious states assumes when our ego lets itself *live*, when it refrains from separating its present state from its

> former state. For this purpose it need not be entirely absorbed in the passing sensation or idea; for then, on the contrary, it would no longer *endure*. Nor need it forget its former state: it is enough that, in recalling these states, it does not set them alongside its actual state as one point alongside another, but forms both the past and the present states into an organic whole, as happens when we recall the notes of a tune, melting, so to speak, into one another.[29]

From the preceding discussion, it is now clear that our experience of time is based on the following facts:

1. Our experience of the phenomena of change and events.
2. Experience of temporal relations, such as precedence, succession and simultaneity.
3. Retention of immediately past experiences in the present, and protension of the present into the future, which are tacitly grounded in our psychological states of remembering, perceiving and anticipating. The latter are the causes of tensed expressions referring to past, present and future.
4. Our experience of the extended events or processes, which is the basis of our experience of specious/extended/perceptual present, and which is supported by our ordinary linguistic usage of temporal expressions.
5. The implicit or inescapably egocentric tendency of our mind to conceive of time in a way an unanalytic mind acts.
6. Our habit of seeing the world of objects and events in a spatio-temporal-causal network.

The majority of philosophers think that we can never know the true nature of the world. Even among the physical scientists, there is no consensus on the issue of a single fundamental law of natue. The philosophers and scientists alike face the epistemological difficulty of verifying the existence of that which, in principle, is unobservable, but whose behaviour and causal impact can be observed.

It is not that only naïve realism of Nyāya-Vaiśeṣika and Jainism is unsatisfactory in their descriptions of the world. Actually, there is no perfect, acceptable-to-all or fool-proof system of description. We can only say that such realists are obviously more unanalytical, and thus less illuminating than others. Whether it is phenomenalism, or analytical behaviourism, or ontological reduction, none of them is free from ego-centricity or subjectivity. What is fundamental or ultimate for one, is derivative for the other. For Nyāya-Vaiśeṣika and Jainism, the fundamental existents are continuants which include everything like substance and properties, particulars and universals, and so on. For them, momentary events are derived from these fundamental realities. Whereas for the Buddhists, the momentary events are fundamental, and substance, etc. are derivatives. For Advaita Vedānta, the only fundamental substantive reality is *brahman*, others are derivatives, and thus illusory. Here, Sāṁkhya-Yoga position is the harbinger of Advaita Vedānta Absolutism. Because of these differences, the treatment of time in these systems varies. Sāṁkhya-Yoga treats time as an explanatory principle to account for change, etc. It is, in other words, a co-ordinating factor which accounts for the relationships among the events. It is not a metaphysical entity which causes change in other entities (*kālas tu sambandhamātropakārī na vikriyāhetuḥ*)[30]. Their approach, in this case, is phenomenological. The Mīmāṁsakas admit the substantive reality of time, but as an adjunct of action.

Duration of Specious Present

Nyāya and Jainism have discussed the nature and duration of present time in some detail. Both maintain two kinds of time—one, which is absolute and substantive (*mahākāla, paramārthakāla, dravyakāla, niścaya-kāla*), and the other is the empirical divisions of time (*khaṇḍakāla, vyavahārakāla, samaya*) based on spatial periodic movements of physical bodies like the earth and the hands of a watch. Both infer time, on *a priori* grounds, as the underlying explanatory principle of all changes, events, happenings, processes, and subsistence (*sthiti, vartanā, dhrauvya*) of other substances in their unchanging essential forms. In these systems, the *a priori* notion of absolute time is derived from the *a priori* notion of present which is inseparably related, and parallel to the eternal essence of other substances. They also subscribe to empirical notion of present which is either extensionless or extended. The extensionless present is logically instantaneous and durationless, while the extended present is more psychological, and has duration of infinite dimension depending on the context. It is in the latter sense that different grammatical forms of present tense are used in our linguistic behaviour. There is no fixed duration of such present, as is clear from the following phrases: 'present hour', 'present day', 'present century', 'present government' and 'present world'. In Nyāya and Jainism, this kind of present time fits in well with their realism. The span of such present ranges from one instant to infinite period, even up to eternity which culminates in absolute time.

However, we face great difficulty in fixing the duration of present in epistemological situations. The Indian epistemologists are divided on the question of whether perception is immediate, direct and mere sensation, or more than that, i.e., whether perception also involves memory. Thus, the problem of deciding the criterion of the nature of

present arises. Once memory is involved in perception, the duration of present can be extended to any extent. To solve this problem, the philosophers introduced the specious present theory:

> On the theory, the specious present was that length of time which would be known directly, in immediate experience, without the help of memory—or, to put in in another typical form, that interval (generally taken to be the maximum interval) that was apprehended by a single act of attention. The specious present was generally taken to consist of a small part of the recently experienced past, and not to involve the future at all. But in another version of the theory, the specious present also included an awareness of a small part of the immediate future. However, it was the former version which was most readily adopted by empiricist philosophers, and by those psychologists who set out to measure, experimentally, the extent or duration of the specious present.[31]

In India, except the Buddhists of the Sautrāntika-Diṅnāga school, all other schools defined perception involving immediate experience and memory. This was due to their metaphysical compulsions. The Buddhists, according to whom the events are fundamental, maintain the epistemological priority, but no duration, of the present of immediate experience, while others admit both in the same present. The latter view can be compared to that of William James:

> Objects fade out of consciousness slowly. If the present thought is of ABCDEFG, the next one will be of BCDEFGH, and the one after that of CDEFGHI—the lingering of the past dropping successively away, and the incomings of the future making up the loss.[32]

In the preceding passages, I have discussed, in brief, only a few issues about the problem of time, and tried to reconstruct and interpret its various Indian philosophical views. A detailed study of these and more will be found in my book *The Buddhist Philosophy of Time.*[33]

Notes and References

1. XIX, 53. 1-8.
2. *Ibid.*, *Sūkta* 8.
3. P.T. Raju, *Structural Depths of Indian Thought*, New Delhi, South Asian Publishers, 1985, p. xxiv.
4. Cf. *Gauḍapāda-kārikā*, I. 8b: *kālāt prasūtiṃ bhūtānāṃ manyante kālacintakāḥ; Śvetāśvatara Upaniṣad*, I. 2 and *Maitrī Upaniṣad*, VI. 14-16; *Bhāgavata-Purāṇa*, IV. 11.19; *Mahābhārata*, XII. 231:

   kālaḥ pacati bhūtāni kālaḥ saṁharate prajāḥ /

   kālaḥ supteṣu jāgarti kālo hi dūratikramaḥ //

   For *Upaniṣadic* references and notes, see S. Radhakrishnan, *The Principal Upaniṣads*, London, George Allen & Unwin, 1974.
5. *Kālasamuddeśa* of the *Vākyapadīya, kārikā* 14, and Helārāja's commentary thereon:

   jalayantrabhramāveśasadṛśībhiḥ pravṛttibhiḥ /

   sa kalāḥ kalayan sarvāḥ kālākhyāṃ labhate vibhuḥ //

   ...kramikāṁścakrabhramavat parāvartamānān bhāvān prakāśayan kālayati bhūtānīti kāla ity ucyate.

   Also see *Amarakoṣa*, I. 4.1: *kāla iti. kalayati. kala saṁkhyāne śabde ca. kālayati sarvam iti vā. ṇyantāt pacādy ac;* Radhakrishnan, *op. cit.*, p. 817: *prāṇināṃ kalanāt kālākhyaḥ sarvabhūtāni saṁharati*, and *Maitrī Upaniṣad*, VI. 2: *kālākhyo 'dṛśyaḥ sarvabhūtāni annam attīti.*
6. X. 30, 33; XI. 32.
7. *Supra*, n. 1.
8. *Supra*, ns. 4 & 5.
9. See Raimundo Panikkar, 'Time and History in the Tradition of India: Kāla and Karma', in *Culture and Time*, ed. L. Gaslet *et al*, Paris, UNESCO Press, 1976, p. 67; and V.M. Bedekar, 'The Doctrine of Svabhāva and Kāla in the Mahābhārata and other Old Sanskrit Works', *Journal of the University of Poona (Humanities)* 13, pp. 17-28. (Both are reprinted herewith).
10. *Supra*, n. 6.

11. See Panikkar, *op. cit.*, p. 67.
12. 'Time and Eternity in Indian Thought', in *Man and Time*, Eranos Year Book, London, Routledge & Kegan Paul, 1958, p. 173. (Reprinted herewith).
13. *Ibid.*
14. *Ibid.*, p. 174.
15. See Panikkar, *op. cit.*
16. Eliade, *op. cit.*, pp. 175ff.
17. *Ibid.*, p. 177.
18. Panikkar, *op. cit.*, p. 64.
19. *Ibid.*, p. 69.
20. Cf. *Kālasamuddeśa* of the *Vākyapadīyā*, *kārikā* 41 and Helārāja's commentary thereon:

    tṛṇaparṇalatādīni yathā sroto 'nukarṣati /

    pravartayati kālo 'pi mātrā mātrāvatāṃ tathā //

    nadīkpravāho yathā tṛṇādīni kānicit prerayati svasthānāt pracyāvayati, kānicit punar ākṣipya tatsthāne niveśayati evam ajasrapravṛttiḥ kālo bhāvān ākṣipyākṣipyotsṛjati, utsṛṣṭānāṃ ca dharmapariṇāmān vartayati.
21. For detail, see Keith Seddon, *Time: A Philosophical Treatment*, London, Croom Helm, 1987, pp. 11ff.
22. XIX. 53.3.
23. R. Puligandla, 'Time and History in the Indian Tradition', *Philosophy East and West* 24, 1974, p. 168. (Reprinted herewith).
24. P.T. Raju, *op. cit.*, p. 427.
25. T.M.P. Mahadevan, 'The Advaita View of Time', p. 546 (Reprinted herewith, but reference not found).
26. See J. N. Chubb, 'Time and the Significance of Contradiction', *Bombay University Journal* 1, 1933, p. 191. (Reprinted herewith).
27. For detail, see Hari Shankar Prasad, 'Time as a Substantive Reality in Nyāya-Vaiśeṣika', *East and West* 34, 1984, pp. 233-66.

28. *Ibid.*, pp. 248-53.
29. Henri Bergson, *Time and Free Will*, London, George Allen & Unwin, 1971, p. 100.
30. *Yuktidīpikā, An Ancient Commentary on the Sāṁkhya-kārikā of Īśvarakṛṣṇa*, ed. R.C. Pandeya, Delhi, Motilal Banarsidass, 1967, p. 74.6. Also see Hari Shankar Prasad, 'Time and Change in Sāṁkhya-Yoga', *Journal of Indian Philosophy* 12, 1984, pp. 35-49.
31. Andros Loizou, *The Reality of Time*, Hants (England), Gower Publishing Co., 1986, p. 53.
32. Quoted by Loizou, *ibid.*, p. 58.
33. Hari Shankar Prasad, *The Buddhist Philosophy of Time*, Delhi, Sri Satguru Publications, 1992.

Time and History in the Tradition of India[1]: Kāla and Karma

Raimundo Panikkar

Appendix: Empirical apperception of time

Dr Bettina Bäumer

'Above time has been placed a vessel full to overflowing.'[2]

The existence of the universe—and hence the history of man and of the cosmos—comes under the sway of two superior forces: *kāla* (time) and karma (the act).

The first part of this study will accordingly be devoted to time, and the second, which is shorter, to history. We shall approach the problem of time by following the various paths of the tradition which is summed up in a passage of Bhartṛhari:

The vision of time varies according to whether time is regarded as power, the Self or a divinity. In a state of ignorance [time] is the first thing to manifest itself, but in the state of wisdom it disappears.[3]

Time

TIME AS THE FRUIT OF RITUAL ACTION

In the earliest experience of Vedic India, time was perceived as the actual existence of the beings we describe as temporal. There is no such thing as empty time. Time is an abstraction which does not exist. What does exist is the (chronological) flux of beings: and it is this process which makes sacrifice possible.

Time is born with sacrifice, and it is by sacrifice that it is once again destroyed. This concept is at the root of the intimate relationship between worship and time, and provides us with a key to the understanding of the central place of sacrifice and man's participation in the unfolding of time. In this sense

time is something which man makes, in close collaboration with the gods time, i.e. the continuing existence of beings, is a theandric product.[4]

In the Vedas, in the Saṃhitā period, we find several words to designate time, for example *āyus*, life-time, life span,[5] or *ṛtu*, the right time for sacrifice the season.[6] Abstract time is of no interest to the *ṛṣis*, the poet-sages of the Vedas for whom there is no continuity of time apart from ritual activity or the act of a god (for instance Indra).

This time . . . has no reality, that is to say efficiency, except in the moments in which divine or sacred acts are concerted. . . . In this succession of acts linking moments it would be vain to look for a given continuity: continuity is no more than the fruit of the constructive activity which recommences day after day.[7]

In the Vedas the unit of time is the day, which is the centre of all experience of time.[8] Dawn and twilight are 'junctions', the most 'critical' moments in the whole day. It is 'from day to day' (*dive dive*)[9] and by dint of the daily sacrifice, the *agnihotra*, that time endures and existence continues. Hence the well-known saying:

If the priest did not offer up the sacrifice of fire every morning, the sun would not rise.[10]

Later, as the sacrifice became increasingly elaborate, and the building of the fire altar in the Brāhmaṇas stretched out over a year, it was the year which became the larger unit of time. The sacrifice remained the foundation of the temporal structure, each brick of the altar corresponding to one day in the year.

It was the *puruṣa*, the cosmic man of the Ṛg Veda[11] and Prajāpati in the Brāhmaṇas, who was originally immolated in order that the world might exist: the world exists only by virtue of this primordial sacrificial act.[12] In a second act—which is, however, performed in the reverse order—it is the sacrifice which reconstitutes the Lord of living beings. Since Prajāpati is identified with time, symbolized by the year,[13] this reconstitution corresponds to the consolidation of time, the structuring of the year. In the Vedas this activity is frequently compared to that of weaving,[14] the weft being made up of the day and the night[15] and ritual moments.[16]

Another very ancient image which represents the rhythm of time is that of the wheel (*cakra*), the symbol of the solar cycle. This image plays a vital part, even today, both in speculations on time and as a folk symbol of the 'cycle' of existence.

To sum up, in this intuitive Vedic view of time there is, first, the idea of a relationship between time and the act of worship ('karma' in the intrinsic sense of the word) which is so close that the one does not exist without the other; and secondly, Vedic man—unlike man in subsequent periods—aspires either to long life, or to a certain kind of continuity which does not seem to be guaranteed by the cosmological events.[17]

TIME AS A COSMIC POWER

A second fundamental intuitive notion of time, which is moreover akin to the first, goes so far as to consider time as a cosmic power which is the *fons et origo* of reality. Not only is this a very ancient concept, for which there are analogies in other civilizations, but above all it is a widely held popular view, belonging probably to the less Brahmanic stratum of Indian tradition. This would explain why nearly all orthodox schools reacted vigorously against what they called *kālavāda*, i.e. the doctrine which places time at the centre of reality and ascribes to it a universal causality. Any vehement negation presupposes precisely the existence, even the predominance, of that which is denied: thus the markedly a-temporal and trans-temporal tendency of a certain kind of Hinduism might be accounted for precisely by the important role played by absolute time in the outlook of the period.

Time as an absolute principle: fate

We shall leave aside the question whether the concept of absolute time was imported into India from Babylon or Greece,[18] and to what extent this concept is traceable to Iranian influences.[19] Our primary concern is with the importance of this doctrine from the period of the Atharva Veda onwards. The exaltation of Great Time in two hymns of this Veda is the earliest expression of this vision of Time as 'the creator of the creator', Prajāpati, who is *brahman* (the ultimate principle of the universe) itself:

1. Time draws (the chariot like) a horse with seven reins,
   a thousand-eyed, fruitful-loined, immune to age.
   Astride it are poets who understand inspired songs.
   Its wheels are everything that exists.
2. Thus time draws seven wheels,
   it has seven hubs, its axle is (called) non-death.
   On the hither side of all these existences
   it advances, first among the gods.
3. A full vessel has been placed above Time.
   We see (Time) even though it is
   in many places (at once).
   Opposite all these existences
   Time (is also seated), they say, in the highest firmament.
4. In oneness Time bore these existences,
   in oneness it encompassed them around.
   Time the father became time their son.
   No glory higher than his.
5. Time engendered Heaven above,
   Time also (engendered) the Earths we see.
   Set in motion by Time, things which were
   and shall be are assigned their place.

6. Time created the Earth;
in Time burns the Sun;
in Time (yes), Time, the eye sees far off
all existences.
7. In Time is consciousness; in Time,
breath; in Time is concentrated the name.
As Time unfolds
all creatures rejoice in it.
8. In Time is (sacred) Fervour, in Time (yes), in Time
is concentrated the all-powerful *brahman*.
Time is the lord of all things,
Time was the father of Prajāpati.[20]

All reality depends on Time, and even sacrifice, which elsewhere in the Vedas is considered as the supreme force, is likewise subordinated to Time. It is important to note the relationship, spoken of in practically all texts on time, between absolute time and empirical time, the creator and the creature, father and son[21] cause and effect. Here space is supported by, and extended in, time.[22] Even inner realities—consciousness and breath—are under the sway of time.[23] A universal dynamism sets everything in motion. To put it succinctly, *kāla* is here the supreme divinity which is subject neither to the personified creator (Prajāpati) nor to the impersonal universal powers of the sacrifice or of the *brahman:*

After conquering all worlds by the Word, time advances, the supreme god.[24]

The Maitrī Upaniṣad, which reflects several concepts of time, quotes a sentence from the doctrine of absolute time (*kālavāda*):

From time flow beings, through time they grow old, in time they are destroyed: Time that is amorphous assumes a shape.[25]

There are, accordingly, two aspects of time: transcendental time and time become incarnate in the sun, the planets and the empirical divisions of time.

It is difficult for us to establish all the connexions between this ancient *kālavāda* doctrine and the much later texts on time the Mahābhārata, for whatever we know about this doctrine comes mainly from quotations occurring in texts which seek to refute it.[26]

Besides, what is reflected in the Mahābhārata is more of a popular concept, which probably had a profound influence on the attitude of less 'Vedic' circles, namely the concept of time as fate.[27] A certain Hindu passivity, which is almost fatalistic, too readily ascribed to a Moslem influence in India, has its roots in this vision of time.

The most frequent quotation, which is attributed to the *kālavādin*, is the following:

Time ripens beings, time enfolds creatures. Time keeps watch when all are asleep. Time is hard to overcome.[28]

While it is obvious from the Mahābhārata that many different views have been held about time, the predominating one certainly seems to be that of an insurmountable fate.

(Time is) the Lord who works change in beings—that which cannot be understood and that from which there is no return. Time is the destiny (flux: *gati*) of everything; if one does not follow it, where can one go? Whether you try to flee from it or remain motionless, you cannot escape from time. The five senses cannot grasp it. Some say that (*kāla*) is Fire, and others that it is the Lord of the creatures (Prajāpati). Some conceive of time as a season, others as a month, a day or even an instant. . . . There are those who say that it is the hour (*muhūrta*): but that which is uniquely One has many forms. Time must be acknowledged as that which controls everything that exists.[29]

Here as in many other texts, time is perceived as indivisible and omnipotent, beyond divisible and measurable time.

Time is the cause of all, it is time that creates and destroys,[30] that binds men by its links[31] and causes the joys and sufferings of men, regardless of their actions.[32] According to this conception man is purely and simply delivered up to fate, and his actions and efforts are powerless to alter his lot. In the end, the destructive aspect dominates: it is Time which hastens the progress of all beings towards dissolution.[33] Time is compared to an ocean where one can see neither the other shore nor any island of refuge.[34] Time becomes the great destructive power, sometimes synonymous with death.[35]

The frequently expressed idea that time 'matures' or ripens beings means simply that it leads to old age and ultimately to death. The Buddhist view of the impermanence of existence, in the context of an ever-fluctuating and fleeting dynamic motion, seems to have influenced this vision of time.[36]

The Purāṇas still retain echoes of the conception of time as a divinity, but they often attempt to integrate it in their respective theologies. The statement that *kāla* is without beginning and without end, ageless, omnipresent and supremely free, that it is the great Lord,[37] is a continuation of the ancient *kālavāda:* 'Time, being infinite, caused the end; being without a beginning, creates the beginning, the immutable'.[38] However, the Purāṇas tend rather to regard time as a divine power.

Time as a power of God

The Atharva Veda already spoke of 'a full vessel placed above time',[39] and time can be visualized as being for ever replenished from that source. This fullness beyond time can be understood in the light of the Maitrī Upaniṣad, according to which '*brahman* has two forms: time and timelessness'.[40] Thus

there is no longer absolute time or relative time, but time on the one hand and, on the other, pure timeless transcendence. This is evidence of a radical transformation which springs from the Vedic concept of sacrifice but which did not produce its full impact until the Upaniṣadic and Vedāntic period: the eternal is no longer thought of as limitless time or absolute time, but as something which transcends any kind of temporality. The vessel full of time, from which time flows out, is not itself temporal: it contains time, while being itself timeless: 'time ripens (matures) all beings in the great Self—in which time itself is matured: he who knows this knows the Veda'.[41]

But this transition does not take place smoothly or without controversy: theism, of which one of the earliest documentary testimonies is the Svetāśvatara Upaniṣad, attacks the *kālavāda* as being materialistic and atheistic:

Some sages say that (the cause of the world) is nature, others say time. They are mistaken, it is the power of God which cause the *brahman*'s wheel to turn in this world.[42]

Time is not an independent reality; it is the Lord who is the 'knower and creator of time',[43] and time is his instrument.[44] The Upaniṣad emphasizes the transcendence of the Lord vis-à-vis time:

He is the origin . . . he is beyond threefold time . . . He is higher, he is other than the tree (of the world), other than time and forms . . .[45]

He, Rudra, repossesses the worlds at the end of time.[46]

In both the Śaivite and Vaiṣṇavite theologies any reality which is not identical with God—though very frequently identified with him—becomes his power or *śakti*. Because of its cosmological importance, time is one of the god's earliest powers: *kālaśakti*, his instrument in the creation, preservation and destruction of the universe. However in the Purāṇas there are many doctrines regarding time. For instance, the Śiva Purāṇa recognizes three levels of time, from which one can trace the process by which absolute time was absorbed by Śaivism. In its first stage, time is not different from Śiva, it is eternal. In its second stage, it becomes the power of Śiva, Śiva being the innermost essence (*ātman*) of time. Śiva rules the universe by means of time. In the third stage, time is considered as a limiting principle, being the product of *māyā*, cosmic illusion. Only in this last stage is time divided up, and causes succession, duration and limitation. What has happened is that the transcendent absolute aspect of time has been transferred into the sphere of the god, and its empirical aspect into the sphere of the *māyā*, that which veils reality. However, the concept of *kālaśakti* strikes a certain balance between these two extremes.

Vaiṣṇavism accepts the same theory. In the Mahābhārata the pre-eminent place of time is expressed thus:

Beyond the spirit is intelligence, beyond intelligence Great Time: (but) beyond time is Lord Viṣṇu, from whom proceeds all the universe.[47]

In the Bhagavad Gītā it is Kṛṣṇa who is identified with time, in its indestructible[48] but destroying aspect.[49]

On the subject of the divine immanence the Bhāgavata Purāṇa says:

The Lord penetrates all existences by his own power (*ātmamāyā*): within he takes the form or the spirit (*puruṣa*); on the outside (he takes) the form of time (*kāla-rūpa*).[50]

The cosmological role of *kāla* is frequently described in the Purāṇas, which say that time exists in a latent state during the dissolution of the world, and is awakened by the god at the moment of the re-creation.[51]

Yet *kāla* is, and remains, more closely linked to Śiva than to Viṣṇu, and it is its destructive aspect which dominates all other cosmological aspects. Śiva himself is called *mahākāla*, Great Time, meaning death.[52] The destructive goddess Kālī is perhaps the female counterpart of the god Rudra-Śiva, who is identified with time.[53]

The conception of *kālaśakti* profoundly influenced Hindu thought. Even a philosopher like Bhartṛhari makes it the first power of the One:

Because they depend on its time-power, which is held to be responsible for differentiation, the six transformations (*pariṇāmas*) like birth, etc. become the cause of the variety of existence.[54]

And the first commentary explains that this power is independent (*svātantrya śakti*) and the cause of everything.[55]

The two concepts dealt with so far encompass a great variety of views, and have in common the fact that they belong to a religious universe: whether they deal with cultic time or with time as an absolute or divine power, these concepts represent two aspects of time as a sacred value, though many others have been traditionally entertained.

Time devoid of real power

For some civilizations the 'overflowing vessel' of time has shattered into countless pieces, and all that remains are the different temporal parameters of the different spheres of reality. For others, the vessel is, as observed above, the symbol of the author of time.[56] But there is still another view, which has found illustrious adherents in India: the view of time as the supreme form of cosmic illusion.[57]

It is relatively easy to trace the development of this thought. When the anthropomorphic features of the 'vessel above time' recede, the vessel ceases to be the lord of temporal reality, becomes its impersonal cause and takes over

the full import of its reality, so that everything which overflows from it is no longer fully real.[58]

Time thus becomes devoid of reality, or at least of any power of reality. It even becomes the symbol of illusion. The vessel above time always remains full to overflowing, for the reason that it never really empties; there is no time which runs out, nothing falls from the timeless vessel.[59] The eternal here devours time.[60] Time here belongs to *māyā*, interpreted as illusion; it is based on *avidyā*, or cosmic ignorance. It is merely something superimposed on the Absolute, the *Brahman*.[61]

Philosophical speculation subsequently sought to modify this vision, and we shall now see that much of Indian philosophy might be characterized by the degree of reality that different systems ascribe to time.

LINGUISTIC HERMENEUTICS

Indian philosophy took an interest in time, starting primarily from a consideration of grammar and language, but also (this is striking in Yoga) on the basis of a spiritual desire to transcend time. The other philosophical systems gave little thought to time; at the most they included it in their systematization of the factors of existence, without however basing their conception of the universe on the phenomenon of time.[62]

We shall confine ourselves here to referring by way of example to the analyses of time carried out by the philosopher of language, Bhartṛhari, in his Vākyapadīya. In his chapter on time[63] Bhartṛhari studies the concepts of time which existed in his day[64] and expounds his own views.

It is obvious that time is closely linked to action, for as stated in a tantric text, space is a limitation of form and time of action.[65] Bhartṛhari maintains that time, as an absolute, is only differentiated and divided up because of actions (*kriyābhedas*),[66] for there is no perceptible time without some action which suggests a before and an after, speed or slowness.[67] An action consists of a succession of instants (*sakramas*). On the strength of the analysis of its two functions the role of time is described in detail: the permissive force (*abhyanujña*) and the preventing or retaining force (*pratibandha*). These are the two functions of time which maintain the order of the universe: without them everything would be produced or destroyed simultaneously.[68] The first function enables the virtual to become real, to blossom forth in time, the second prevents things from materializing before their time and ensures that they do not continue beyond their allotted time. Thus time is called the secondary[69] or efficient[70] cause, which alone can regulate and activate the other causes.

Some schools of philosophy have denied the existence of time independent from action.[71] Bartṛhari, on the contrary, recognizes only the existence of time as such, utterly independent of any division between time past, future and present.[72] He considers that it is the sequence of actions which causes us to speak of past, future and present, time itself being always the same. In other

words, we speak of the past because an action is completed, and we think of the future when we imagine coming events. The proof of the existence of time in the present is more difficult to establish, and implies a detailed analysis of grammatical usage, which we shall not go into in this study.

Time is called the pure mirror that reflects the real form of beings.[73] It is time which, so to speak, strips bare the reality of things.

Lastly, the grammarian philosopher Bhartṛhari recognizes that all action would be impossible without time; whether or not one tries to make it relative, a purely mental concept, one cannot get away from a fact.[74]

Already in the Mahābhāṣya and Kaiyaṭa's commentary thereon we find the asseveration that it is change (*pariṇāma*) in beings that forces us to accept the reality of time.[75]

These examples are sufficient to show that empirical and phenomenological analyses are indeed to be found in the Indian tradition. Yet the fact remains, significantly, that language is the starting point of these reflections. Other analyses, to be found in Yoga and Buddhism, which are just as detailed, show a purely spiritual concern, and lead not to an empirical affirmation but rather to the negation of any objective reality of time.

THE INTERIORIZATION AND TRANSCENDING OF TIME

The Vedas sought the continuity of time through the sacrificial act, but the Upaniṣads began to question the permanence of this act and this continuity.[76] Immortality, the sole concern of the Upaniṣadic sages,[77] was no longer ensured by the performance of the rite. Continuity was no longer to be found externally, in the ritual or the cosmos, but internally, within man, or more exactly within the Self, the *ātman*. And yet cosmic connotations are not lacking in this new vision.

One of the first factors to be descried in the search for this continuity is the breath of life, *prāṇa*.[78] *Prāṇa* is, in the first place, the life principle and the individual aspect (*adhyātma*) of the unabating, omnipresent cosmic wind (*vāyu*);[79] secondly, *prāṇa* is not merely physiological breath, but the rhythm of respiration which also becomes a spiritual exercise (*vrata*) to overcome death.[80] This is the beginning of yoga exercises to control breathing (*prāṇāyama*). If even the sun is said to rise and fall in the *prāṇa*, one begins to realize the cosmological importance of the breath. Later on, *prāṇa* is identified with immortality (*amṛta*)[81] and *brahman* itself. The important point is that respiration corresponds to an internal time, and it is the mastering of this internal rhythm, especially in Yoga, that leads to the transcending of time—both externally and internally.

The transition from the cultic time of the Vedas to the interiorized time of the Upaniṣads occurs evidently at the point where respiration, interpreted as a sacrifice, takes the place of the sacrifice of fire (*agnihotra*).[82]

In addition, the Upaniṣads look for what is beyond the past and the

future;[83] they seek infinitude (*bhūman*)[84] and plenitude (*pūrṇam*), which they find symbolized more in space than in time: the atmosphere, infinite space (*ākāśa*) is present also in the innermost chambers of the heart (*hṛdākāśa*).

The Kālacakratantra contains a distant echo of this interiorization of time as a spiritual exercise designed to transcend time.

(The yogi) relates inhalation and exhalation with day and night, and then with fortnights, months and years, gradually working up to the major cosmic cycles.[85]

The purpose of this and other similar practices is patently to succeed in discovering the unreality of time,[86] and eventually to transcend time.

From the Upaniṣadic period onwards both time—succession and duration—and the universe of the act (karma)[87] are divested of their value, and at the end of this process it is the doctrine of the cycle of existences (*saṃsāra*) which gives rise to a negative conception of time. The metaphysical schools which have liberation (*mokṣa*) as their goal tend in theory to deny time any real value, and seek to achieve a state of existence which is beyond time—to use a Yoga term 'the cessation of mental states',[88] one of which is time.

In order to affirm the relativity of time, these schools then envisage time as an intellectual conceit having no counterpart in any 'real thing'. This almost psychological reduction of time is expressed, for instance, in the Yoga Vāsiṣṭha, which attempts to demonstrate the unreality of instants and cosmic ages.[89] It says that, depending on the mental state of the subject, an instant may appear as a *kalpa* (aeon) or, contrariwise, an aeon may be experienced as a single instant.[90] In short, time *per se* does not exist. He who is absorbed in meditation knows neither day nor night[91] and in the end, Self-knowledge, illumination, encompasses all the future in an instant.[92]

The philosophical schools following the Upaniṣads and Buddhism take the instant, *kṣaṇa*, as their fulcrum for the 'leap into timelessness'. Here it should be noted that the doctrine of instantaneousness and the 'propitious instant of liberation'[93] profoundly influenced Hindu spiritual teachings.

The interiorization of time, the first step towards transcending it, thus leads towards the discovery of 'subtle time', the infinitely small unit of time, in which time and eternity, movement and stability meet, since: 'it is on the stasis (*sthiti*) of time that all quietude depends.'[94]

In his *Yoga Sūtra* Patañjali recommends 'meditation on the instant and the succession of instants in order to attain knowledge born of discernment'.[95]

The commentary defines the instant—the sole 'real' facet of time—in terms of atoms (*aṇus*) and their movement.[96] The succession of instants, and units of time—here the influence of Buddhism is visible—are not real (*na asti vastu-samāhāraḥ*), but exist solely in the mind (*buddhi*) as an intellectual or verbal concept. Time is empty of reality (*vastuśūnya:* without substance), and the yogis admit only the present instant, without past or future. Hence the purpose of meditation (*saṃyama*) is to attain the perception of the instant

which is pure and—paradoxically—unflawed by temporality, for it is this subtle time (*sūkṣma*) which is the springboard for the timeless and the eternal. Transformations (*pariṇāmas*) are not denied, but they are reduced to the sole instantaneous dimension of time.

Not only in Buddhism, but also in other philosophical schools, the instant acquires a kairological connotation—in other words, salvation, the awakening, the release from the yoke of time, may be achieved at any instant, or else at the propitious instant (and here, a certain notion of grace is implied).

The Śaivism of Kaśmīr (the Trika school) goes still further:

> Since no time unites instants in one substance, the yogi will be able to separate and penetrate the liberating interstitial vacuum (*madhya*) in between two succesive instants.[97]

According to this system the instant is described as the vibration of consciousness; it is the eternal present which alone confers plenitude and felicity,[98] a state governed by neither space nor time.[99] It is through the instant that one penetrates into timeless reality.

Can we try to define more closely the concept of time in traditional India? We have quoted the richly evocative symbol of the overflowing vessel. We may perhaps hazard a guess as to some aspects of this vessel overflowing with time.

The first aspect is the co-extensiveness of time and beings. There is time so long as beings exist, and beings exist so long as they have time (to exist).

The second aspect is that there exists the same degree of reality between beings and time. If beings are regarded as real, unreal or half-way between (*sadasadanirvacanīya*),[100] time partakes of the same degree of reality.

Although language is inadequate to express the third aspect, most of the systems of India hold that time, and with it beings, does not exhaust the whole of reality. The vessel which contains time makes time possible, but is not itself temporal.

History

The very notion of history raises some preliminary problems of terminology. Are we talking about the concept of history, or about the way in which history is experienced, or about the historical dimension of man?

Should we start from a Western conception of history and look for corresponding elements in other cultures? Manifestly, we do not seek to express Indian categories in Western terms, nor vice versa; our object is rather to discover the intuitive views of India and to situate them in the Indian world of thought, where they may possibly occupy a place homologous to that occupied by history in Western thought.[101]

A further comment in regard to history is appropriate here: it seems that the 'idea' of history and of historicity (as distinct from the 'experience' of history) makes its appearance precisely at the time of a break with, or deep crisis in, tradition. It is when tradition is challenged that one most fully realizes the historical character of existence: reflection needs a certain perspective. The West is going through a crisis with respect to its own tradition, and is keenly aware of its historicity. India, on the contrary, is still, despite its manifold crises, living in tradition, without the perspective of historical self-reflection, i.e. without being fully convinced of 'living through' history. There are admittedly some very diverse historical levels within the modern culture of India, but history in India is the living of tradition rather than any subsequent reflection on this culture.[102]

As regards the tradition itself, the concept which has played, and still plays, a role comparable to that of the historicity of man in Western philosophy, might be said to be the concept of karma.[103]

KARMA AND THE HISTORICAL DIMENSION OF MAN

In dealing with time we saw that action is intimately linked with time. Both in the world of the Vedas and in the analysis of factual experience it is often the deed, the human or divine action, which determines time. Apart from certain doctrines of absolute time, the law which governs time and history taken together as a whole is the law of karma.

Karma is in the first place action,[104] then the residuum of the action which produces good or bad results[105] and which lives on after the person,[106] and lastly, the law that governs the retribution of actions and the network of interconnexions between the karmas of beings. This 'universal causality', as the law of karma is commonly known, explains virtually all the relations in the universe, and goes far beyond any individual conception of transmigration. Karma combines personal elements (the repercussion of each action unto the outermost limits of the cosmos) with impersonal ones (the element of 'creatureliness' that all beings have in common) in such a way that karma may be said to be inexhaustible, i.e. without end, as the aggregate of the residues of human acts. The being who attains *mokṣa* may be released from his karma, but the karma as such is not ended.

Who then is the subject of karma? While the Western world of today tends to regard the individual, or particular individuals, as the subject or subjects of history, India tends to deny that the illusory Ego can form the subject of karma. Sankara's saying has become classic: 'There is no transmigrant (subject) other than the Lord.'[107]

Karma as a universal law, does not reflect the externals of history, an explanation of events (though such an explanation may be inferred from it) but rather the inner historicity, subtle and hence invisible. Reflection on karma is more of a reflection on the causes of events.

Furthermore, the very term 'event' should be understood not as connoting something which happens externally, or even as an external change in a constellation of space and time, i.e. a change in the position of beings, but as meaning a karmic modification, i.e. a modification in a being's karma. This is a question rather of anthropological incidences than of sociological accidents, achievements rather than occurrences.

The question of man's freedom with respect to his own or the universal karma has also preoccupied the Indian mind. Philosophical and religious schools have proposed different paths for escaping from what appears to be determined and have defended the free human act (*puruṣakāra*), i.e. man's power to break the actual chain of the causality of actions and reactions. Some of the more determinist views come very close to the interpretation of *kāla* as fate;[108] and it was to get away from these views that there were developed on the one hand the idea of *puruaṣakāra* (which is, for example, basic to Yoga: man's own effort to transcend his karma) and, on the other, the doctrines of divine grace.

This being said, there is no school or religion in India, perhaps even in all Asia, which would deny the law of karma, however diversely interpreted.

The relationship between karma and time, the counterpart of that which exists between historicity and time in Western thought, is twofold. In the first place, time's *raison d'être* is precisely the existence of karma. So long as karma exists in the world, time will be necessary. Karma is, as it were, the intrinsic quality of time, that which gives time substance and density. Secondly, without time karma would be unrealizable, but would remain in a latent state; and without the collaboration of time, so to speak, beings would not be able to attain either their goal, through the performance of their duty in this world, or the liberation for which the consummation of all karmas is a prerequisite.[109] The example of those 'liberated during their lifetime' (*jīvanmuktas*) demonstrates this relationship: for the individual who has 'raced through' all his karmas time has, as it were, ceased; he lives outside time, and his body is said to continue to exist only until the consumption of all the subtle vestiges of the karma, of which his body is but the condensation.

Karma is thus linked less to history, in the sense of historiography, than to the intrinsic historical character of beings, whereby their past determines the present and the future, and not a single one of their actions is wasted or is without repercussions. The structure of reality is based on this historicity, which makes possible reciprocal interactions throughout the world, in a pattern of universal solidarity.

MYTH AND HISTORY: *ITIHĀSA* AND *PURĀṆA*

A people's vision of history indicates how it understands its own past and absorbs it into the present. But it is not so much the written interpretation as the way in which the past is experienced, and continues to be experienced, that

bears witness to a people's attitude to history. India has experienced its past much more through its myths than by interpreting its history as a recollection of past events. This is not to say that there is no such recollection—in certain regions there is even an acute consciousness of history in this sense[110]—but there are no criteria for differentiating between myth and history, a disconcerting fact for the Western mind, which does not realize that history is its own myth. Commenting on that great epic, the Mahābhārata, G. Dumézil has said that it 'is not what we think of as history, but takes the place of history, and renders the same services both to dynasties in search of great ancestors and to a host of listeners longing to hear of a glorious past.'[111] In other words, it is myth as the counterpart of history.

The recognized expressions for 'mythical history' or 'historical myth'—the two are inseparable from each other—are respectively *itihāsa*, 'it happened thus', used to designate epic literature, and *purāṇa*, 'ancient narrative', used to designate more specifically mythical literature, in which historical elements are obviously intermingled.[112]

Myth and history should not be correlated to legend and truth, but should be regarded as two different horizons of reality. Within a historical view only the myth appears as legend, i.e. as being less real than historical facts. Within a mythical view, on the other hand, history is interpreted as inferior to myth. What the Westerner considers as history in the West, he would regard as mythin India. In other words, what he calls history in his own world is experienced by Indians as myth. But conversely, what in India has the degree of reality of history is what in the West an Indian would call a myth. Put differently, what an Indian in India would call history is experienced by Occidentals as myth. From the Western point of view, it is not history which carries weight in the Indian mind: whatever is of importance in a people's historical consciousness is precisely mythical.

The personalities and events which profoundly mark and inspire Indian life (in Western terms, which carry historical weight) inevitably give rise to myths, since any event which has what we may call existential 'consistency' enters into the realm of myth. 'Myth' has a greater degree of reality than 'history'. This statement might be illustrated by a reference to the popular reaction at the time of the birth of Bangladesh.

The process of the creation of myths has not come to an end, and it has been amply proved by M. Eliade that 'archaic man' is more interested in archetypes than in the uniqueness of an historical situation.[113]

If it is conceded that this 'mythical consciousness' corresponds to the Western 'historical consciousness', at least in respect of its function of preserving and integrating the past, it should be said that, while India has not thought profoundly about 'history', it has organically assimilated historical facts into 'myths'. This assimilation might be compared to sacred trees like the pipal, the secondary roots of which reach down from the air to the soil, take root again and sometimes survive even when the trunk has gone.

REINTEGRATION OF HISTORY

Nearly all Indian traditions have regarded the ultimate meaning of life as a-temporal and in a certain sense non-historical. They have placed greater emphasis on detachment and the surrender of historical values than on temporal commitment, since true history always transcends the temporal. Yet such commitment has not been lacking, and its justification is to be found precisely in a religious conception of secular duty. The teaching of the Bhagavad Gītā was, and still is, an outstanding example of this attitude.

It has been said that it was no accident that the Bhagavad Gītā was rediscovered in our time, and that it has provided a spiritual basis for many political movements. The reason is that it teaches that the path of action (*karmamārga*) is as valid as the traditional paths of knowledge (*jñānamārga*) and of loving devotion to a god (*bhaktimārga*). The advice given by Kṛṣṇa to Arjuna on the battlefield (the plain of *Kurukṣetra*) was precisely not to relinquish his duty (*svadharma*),[114] but to fulfil his role in a given historical (i.e. mythical) situation. Action must be purified (*karmaphalatyāga*),[115] and it is this unattached action which alone is capable of maintaining the universe and the order of the world (*loksaṃgraha*).[116]

The great leaders of modern India, like Mahātma Gandhi, Vinoba Bhave and others, found their source of inspiration in this spirituality of action in the Bhagavad Gītā. They purged political action of personal aspirations and gave a divine significance to history. They approached history not as an end in itself—as if a more perfect future society might form the aim of mankind's expectations—but as a duty assigned by God, which must be carried out with total commitment, yet at the same time with the greatest possible detachment.

Gandhi's interpretation of history may be summed up as follows:[117]

1. The meaning of earthly life and the meaning of history are identical.
2. The ultimate meaning of life is a-historical or trans-historical, but at the same time it is conceived as being dependent on the social order.
3. Since this ultimate meaning of life is transcendent in relation both to history and to the social structure, man's hope does not lie in a future utopia.
4. Since the ultimate meaning of life is a-historical, there is no absolute concept of history.

One might conclude this study with a reference to the familiar metaphor of the circularity of time and history as an expression of the quintessence of Indian experience, while giving it its proper interpretation.

The circularity of time, hence the repetition of history, does not imply that time is infinite or history unlimited—quite the contrary. Circularity is the symbol of the contingency, ontological limitation and closure of time, as also of the enclosure of history and the contingency of events. The circumference is limitless, and the circle indefinite, only in a unidimensional or two-dimensional world. This metaphor from geometry signifies precisely that reality has other dimensions, and that one must break through encircling time if one is to save

oneself and achieve being. One must escape from the domination of time, not by running towards a future which is always ahead, but by leaping out of the circle.

It there were nothing else but time, the 'successive' points of passage through the same point would be absolutely identical, in other words, there would be only one single point. This is the cycle of *saṃsāra*, or, perhaps, hell: this is what history would be, were one not able to escape from it. . . .

APPENDIX

Dr Bettina Bäumer

Empirical apperception of time

WORDS DESIGNATING TIME

Āyu, āyus: vital force, life span, duration of life (especially important in the Veda); cognate of the adjective *āyu*, lively, mobile, changing. (cf. *Aiōn* αἰών), (Greek concept analysed by G. Pàttaro on p. 173).
Abhīka: critical instant, decisive moment (Veda), literally: meeting, collision.
Kāla: fixed time, space of time, time; occasion, fate, death.
Ṛtu: regular time, season, propitious or effective time. In the Vedas designates the specific time for sacrifice, and subsequently the season of the year. From the same root as *ṛta*, cosmic order.
Samaya: literally, meeting, agreement, arrangement; subsequently occasion, suitable time, fixed time, rule, coincidence; final moment.
Velā: literally, limit, river bank or shore; time limit, period, season, hour, opportunity, moment of death, last hour.
Kṣaṇa: instant, moment, the smallest unit of time (twinkling of an eye); propitious moment (particularly for salvation, liberation), also free time. Frequently (in the modern languages of India as well) signifies feast day, rest time, leisure; interval of time.
Muhūrta: propitious moment (fixed by astrology for occasions such as marriage), instant, moment, a unit of time (one-thirtieth of a day).
Kalpa: literally, that which is constructed or imagined; fixed time (fixed by the imagination), a period of the world, aeon (see ages of the world).
Yuga: human generation; astronomical cycle; age of the world, period of time which elapses between generations.

Diṣṭa: literally, that which is determined; fate, death, time.
Gati: course or flux (of time), movement, destiny.
Krama: duration as a succession of elements ('*krama* is the unbroken succession of instants').[118]

Most of the words mentioned above have a meaning strongly associated with fate and death. *Kāla*, the divine power or the power of the godhead, becomes the supreme destructive power, death personified (*mahākālā*), and is thus associated with Śiva, the great destroyer, or Kālī, the goddess of destruction. Since time itself is the force which 'matures' and 'digests', i.e. ripens beings (*pacatis*),[119] which causes them to revolve and envelops them (the root *vṛt*, with different prefixes) and carries them off (*saṃharati*),[120] the only way of overcoming time will be to 'destroy' it in an act of intuition (*jñāna*), or else by yoga.

From *kāla* comes the adverb *kālya*, which in most of the modern languages of India (derived from Sanskrit) has taken the form *kal*, and means tomorrow, or yesterday, or both. Thus the adverbs of time, yesterday and tomorrow, the day before yesterday and the day after tomorrow, are expressed by the same word, the important characteristic being the distance from the centre (today, which is in itself non-temporal), without favouring one direction over the other.

TIME AS REFLECTED IN SANSKRIT GRAMMAR

In classical Sanskrit, the present tense predominates, and the future often takes the meaning of the present. The verb tends to be eclipsed by substantive and adjectival expressions. The temporal relationship of anteriority is expressed primarily by the unattached participle or the past participle. The well-known 'substantive character' of classical Sanskrit, with its juxtapositions, combinations, repetitions, etc., and the predominance given to passive rather than active verbs shows a preference for static over dynamic relationships, a certain primacy of being over becoming; it reflects a tendency to eliminate action as such. It is noteworthy that most nouns expressing static qualities have an intrinsic positive value, whereas nouns which express movement and change possess a pejorative value.

MEASUREMENT OF TIME

Since ancient times, India has been acquainted with subtle divisions of time.[121] The Viṣṇudharmottara Purāṇa gives the following illustration of the extreme subtlety of time (I, 72, 4): if one pierces 1,000 lotus petals with a needle, the foolish man thinks that they are all pierced simultaneously (I, 72, 5), but in reality they were pierced one after the other (*kālakrameṇa*, 'in order of time'),

and the subtle difference between the instants in which the successive petals have been pierced represents the subtlety of time (I, 72, 6).

There are considerable divergences between texts, particularly as regards the smallest divisions of time. It will be enough to give two examples. The most minute division of time, which is for that very reason compared to the atom (*aṇu* or *paramāṇu*), lasts for the twinkling of the eye, or the time required to utter a short vowel;[122] it is called *nimeṣa* or *kṣaṇa*. According to the counting system used in the above-mentioned Purāṇa,[123] two *nimeṣas* equal one *truṭi*, ten *truṭis* equal one *prāṇa* (= breath), six *prāṇas* equal one *vināḍikā*, and sixty *vināḍikās* equal one *nāḍikā* or *ghaṭī* (= twenty-four minutes). A unit comprising day and night (*ahorātra*) is made up of sixty *nāḍikās* (or *ghaṭīs*) or else of thirty *muhūrtas* (two *nāḍikās* = one *muhūrta*). From the *ahorātra* onwards, the divisions are the same in all systems, namely: half-month (*ardhmāsa*), month (*māsa*), season (*ṛtu*), which normally consists of two months, half-year (*ayana*, consisting of three *ṛtus*) and year (*varṣa*, *saṃvatsara*). Divisions longer than a year are aeons, the ages of the world, which we shall deal with separately.[124]

A rare example of an extremely subtle division of time is to be found in the Bhāgavata Purāṇa (III, 11, 3–10). A more common measurement is found (among others) in the Manu Smṛti (I, 64), using the *nimeṣa* as a base: eighteen *nimeṣas* equal one *kāṣṭhā*, thirty *kāṣṭhās* equal one *kalā*, thirty *kalās* equal one *muhūrta* and thirty *muhūrtas* equal the day-and-night unit (*ahorātra*).

THE CALENDAR, ASTROLOGY, FEAST DAYS

As the Hindu calendar contains at one and the same time astronomical, astrological and religious elements, it would be artificial to separate them. In fact, the calendar is useful not so much for fixing the date, since the quantitative and chronological aspect of time is entirely secondary; it is consulted in order to determine the times of worship and feast days, and the propitious time for a particular undertaking. The whole of life is regulated by the laws of 'theocosmic' time.

Owing to the combination of solar and lunar time the Hindu calendar is not easy to establish. Without going into complicated astronomical discussions, it is important to note that in general the solar month (*sauramāsa* or *sāvanamāsa*) is almost exclusively the 'quantitative' time for measuring the year; and that in all matters concerning cultic time, times of fasts, observances (*vratas*) and feasts (*utsavas*), as well as individual events and activities, the lunar month (*cāndramāsa*) is the more relevant unit of measurement. Very often, however, it is precisely the relative positions of the moon and the sun which are decisive.

Most texts affirm that time (*kāla*), which is in essence indivisible and eternal, is divided up solely because of the movement of the sun (and other heavenly bodies). The sun is even said to be the source of time.[125] The classic definition of time is given by Patañjali in his Mahābhāsya:[126]

People say that kāla is that by which one observes the waxing and waning of solid bodies, and it is also called 'day and night' when it is associated with a certain activity. What activity? The movement of the sun. It is by the repetition (of the same movement) that we have the month and the year.

The lunar month (*cāndramāsa*) is divided into two fortnights (*pakṣas*) of lunar days or *tithis*. The 'black' fortnight (*kṛṣṇapakṣa*) begins with the full moon (*pūrṇimā*, and the 'light fortnight' (*śuklapakṣa*) with the new moon (*amāvāsyā*). Religious activities are regulated by lunar days.[137]

There is no unified calendar for India as a whole, and as a consequence of divergent calculations it can happen that the same feast days are celebrated on different dates in the north and in the south. Generally, the Hindu calendar (called *pāncāṅga*) contains the following elements: at the beginning, the name and the divinity of the year, with the year's horoscope; then the name of the month, the length of the solar day, the lunar day (i.e. the name of the *tithi* and the *pakṣa*), the days of the week, the beginning and end of the *tithi*, and the *nakṣatra* or constellation; the *yoga*, or propitious or unfavourable times for various activities (determined by the relation of the sun and the moon), with the *karaṇas* (since each *tithi* has two *karaṇas*, there are sixty *karaṇas* in the lunar month); then the *rāśis* or signs of the zodiac. The times of sunrise and sunset (important for the rites of *sandhyā*, dawn and dusk) and of the rising and setting of the moon are recorded, as well as the mid-point of the year (the southern or northern course of the sun—*dakṣiṇāy* or *uttarāyana*—which is important, for example, in ancestor worship). At the end are indicated all the prescribed ritual actions, feast days, etc.

It is interesting to note that at the beginning of each ritual act (*pūjā*), at the moment of 'resolution' (*saṃkalpa*), the definition of the present instant is recited first, beginning with the aeon (*kalpa*), the *yuga* (current cosmic age), then the year, the month, the fortnight, the *tithi* and the *muhūrta*. Worship is a cosmic activity which assumes time and space in a special way. Thus even the science of astronomy (*jyotiṣa*, subsequently astrology) is justified as follows:

The Veda exists for the purpose of accomplishing sacrifice; sacrifices are prescribed according to the order of the times; thus he who knows astronomy (*jyotiṣa*), which is the science that regulates time, knows the times of sacrifices.[138]

The year in India is generally divided into six seasons: spring, (*vasanta*), summer (*grīṣma*, hot season), the rainy season (*varṣa*, monsoon), autumn (*śarad*), winter (*hemanta*) and the cold season (*śiśira*), which comes between winter and spring. In several regions the Hindu year begins half way through the month of *caitra* (March-April), but many regions have their own new year.

Dates are fixed according to different eras, the most common of which are the Vikrama era (from the victory of Vikramāditya in 58 B.C.) and above all the Śaka era (beginning in A.D. 78), both of them fairly close to the Christian

era. Sometimes the date is given by reference to the beginning of the current *kaliyuga* (which is supposed to have begun about 3102 B.C.).

While a certain a-temporal interpretation of Hinduism (influenced by neo-Vedānta) has always denied the value of time, the importance in Hindu life of propitious or inauspicious times (*muhūrta* has become the commun noun for a favourable moment) can hardly be overstated. Cosmic, individual and religious times are inseparably bound up. The notion of an individual human destiny separate from the rest of the cosmos is unthinkable, and this is reflected in man's relationship with time. No important religious or secular activity is undertaken without consulting the astrologer. It is the qualitative aspect of time, its ontological 'density' which predominates. There is no 'neutral' time —such as implied by technology.

Festivals are condensations of cosmic and mythological time. Some festivals are purely cosmic in origin, such as the solstices (*saṃkrānti*), full moons (*pūrṇimā*), etc., although they are often linked with original or subsequently added myths. Other festivals are mythological or historical (for example, the night of Śiva or Śivarātrī, or the birth of Rāma or Rāmanavamī). The quality of the feast-time is basically different from that of ordinary time; the festival represents so great a concentration and condensation of time that time is forgotten. In other words, participating in a festival means entering into truly full, condensed time, it means transcending time and entering into eternity.

There is yet another difference between this eternity, based on the time condensed in the festival, and the eternity of the timelessness of contemplation. Contemplation cannot even be approached from the temporal aspect, nor can it be visualized as contrasting with action, since practically all Hindu philosophical schools affirm that contemplation (properly speaking: *samādhi*) is by definition outside time. The only temporal definition of contemplation to be found in both Yoga and Buddhism is the instant (*kṣaṇa*).[129]

MYTHICAL TIME, AND AGES OF THE WORLD

While the well-known 'in the beginning' (*agre*) of the Veda can be interpreted as a time of origin, revealing an original state of things, in post-Vedic periods it was held that this origin continually reproduces itself (cf. *punaḥ punaḥ*, *yuge yuge*, etc.), since each creation is preceded by the destruction of the previous creation, and so on. Time (*kāla*) has neither beginning nor end (*anādi*, *ananta*). The complete systematization of this concept is to be found in the doctrine of the *yuga*, the *kalpa* and the *manvantara*.[130] The catalogue of the divisions of time (particularly in the Manu Smṛti and the Purāṇas) passes without a break from the instant, the twinkling of the eye, to cosmic ages: there is no qualitative difference, because whatever is under the sway of the temporal is relative.

The smallest of the ages is the *yuga*, the unit of human history, and four *yugas* of varying length make up a great age (*mahāyuga* or *caturyuga*). The *yugas* reflect a conception of history which places the golden age at the begin-

ning of creation, with a progressive decline up to the fourth *yuga*. Thus we have the *kṛtayuga*, also known as the *satyayuga*, the age of truth or golden age, which is supposed to last 4,000 (divine) years,[131] the *tretayuga* lasting 3,000 years, the *dvāparayuga* lasting 2,000 years and the *kaliyuga* lasting 1,000 years. Each *yuga* is separated from the next by the time of the dawn which precedes it and the twilight which follows it. Thus the duration of a *mahāyuga* is 12,000 years. The destruction of the cosmos (*pralaya*) occurs at the end of a cycle. We are at present in the *kaliyuga*, the degenerate age. A thousand *caturyugas* make up a *kalpa*, which is one day (or one night) of Brahma, the creator. According to another fairly ancient conception, a unit of seventy-one *mahāyugas* is governed by a Manu (progenitor of the human race), and is known as a *manvantara*. Thus a *kalpa* consists of fourteen *manvantaras*.

Whereas within a *mahāyuga* there is a certain (in fact negative) development, and each *mahāyuga* has a certain historical character, the major cycles are formed of unceasing changeless repetitions. The repetition and circularity of time by no means signify limitlessness, and even the expressions for infinite time (*anādi*, *ananta*) are more suggestive of the slavery of time, its contingent and limited nature. The circle tends rather to be a symbol of the finite, and the determinate complete system of the ages of the world reprensents time closing in on itself. Here we have complete relativity, which includes the gods, who are also under the sway of time, while having their own specific times. Beyond time there is only the undifferentiated *brahman*. Thus the object is not to go back to an origin in time, the golden age, etc., but precisely to break the temporal limits, without relapsing into a more subtle or more elevated form of time (a time of salvation, etc.). The vista of the cosmic circles demonstrates the evanescent and illusory nature of existence.[132] No one is afraid of wasting or 'losing' time, precisely because 'lost time' is Being regained.

NOTES

Following is a list of abbreviations used in the notes below:

AV	Atharva Veda	Māṇḍ Kār	Māṇḍūkya Kārikā
BG	Bhagavad Gītā	MBh	Mahābhārata
Bhāg Pur	Bhāgavata Purāṇa	RV	Ṛg Veda
BS	Brahma Sūtra	SB	Śatapatha Brāhmaṇa
BU	Bṛhadāraṇyaka Upaniṣad	SU	Śvetāśvatara Upaniṣad
CU	Chāndogya Upaniṣad	Vākyap	Vākyapadīya (Bhartṛhari)
Kaṭh U	Kaṭha Upaniṣad	Viṣṇu Pur	Viṣṇu Purāṇa
Mah Nār U	Mahānārāyaṇa Upaniṣad	YS	Yoga-Sūtra (Patañjali)
Mait U	Maitrī Upaniṣad	Y Vās	Yoga Vāsiṣṭha
Māṇḍ U	Māṇḍūkya Upaniṣad		

1. Despite India's close connexion with Buddhism, the fact that Buddhism developed outside India and that Indian Buddhism alone would require a separate study will be our excuse for this limitation of the field to India. We are the first to deplore this limitation of the field.
2. AV XIX, 53, 3. *Pūrṇaḥ kumbho'dhi kāla āhitaḥ. . . .*
3. Bhartṛhari, Vākyap. II, 233.
4. cf. R. Panikkar, *Le Mystère du Culte dans l'Hindouisme et le Christianisme*, in particular the chapter on 'Le Culte et le Temps', p. 43–52, Paris, Éditions du Cerf, 1970.
5. cf. RV X, 17, 4.
6. cf. RV I, 49, 3; I, 84, 18.
7. L. Silburn, *Instant et Cause*, p. 43, Paris, Vrin, 1955. The quotation is a Unesco Secretariat translation, from French.
8. cf. RV X, 37, 9 etc., and SB IX, 4, 4, 15 for the continuation of the tradition, for example.
9. cf. e.g.: RV I, 1, 3; X, 37, 7.
10. SB II, 3, 1, 5.
11. cf. RV X, 90.
12. cf. R. Panikkar, 'La Faute Originante ou l'Immolation Créatrice, Le Mythe de Prajāpati'. In: E. Castelli, *Le Mythe de la Peine*, p. 65–100, especially p. 70–9, Paris, Aubier, 1967.
13. cf. SB V, 2, 1, 2; VII, 1, 2, 11; X, 4, 3, 3, and also BU I, 5, 14; Praśna U I. 9; etc.
14. cf. RV IV, 13, 4; V, 5, 6; AV X, 8, 37 et seq.; etc.
15. cf. AV X, 7, 42–3, etc.
16. cf. RV II, 3, 6; X, 130, 1–2; etc.
17. cf. RV II, 33; etc.
18. cf. O. von Wesendonck, '*Kālavāda* and the Zervanite System', *JRAS*, Jan. 1931, p. 108–9,
19. cf. J. Scheftelowitz, *Die Zeit als Schicksalsgöttin in der Indischen und Iranischen Religion.* Stuttgart, Kohlhammer, 1929.
20. AV XXI, 53, 1–8. by Trans. by L. Renou, in: *Hymnes Spéculatifs du Veda* (Verses 9 and 10 have been deleted), Paris, 1956. The quotation is a Unesco Secretariat translation, from French.
21. *Hymnes Spéculatifs du Veda*, op. cit., 54, 3.
22. *Hymnes Spéculatifs du Veda*, op. cit., 54, 2.
23. *Hymnes Spéculatifs du Veda*, op. cit., 53, 7.
24. *Hymnes Spéculatifs du Veda*, op. cit., 54, 6.
25. Mait U VI, 14.
26. cf. Gauḍapāda's reference in Māṇḍ Kār 8 to the *Kālacintakāḥs*, 'those who reflect on time' and regard it as the origin of everything.
27. *Kāla* is very close to *niyati* and *daiva*.
28. MBh XII, 231, 25; XII, 227, 79; etc. cf. however: 'But no one here on earth knows him in whom Time is ripened', XII, 244, 2.
29. MBh XII, 224, 5–54.
30. Mbh XII, 227, 73.
31. Mbh XII, 227, 81–2.
32. Mbh XII, 227, 85.
33. Mbh XII, 227, 103.
34. Mbh XII, 231, 23 and 27.
35. cf. MBh XII, 27, 44 which speaks of 'the ocean of time infested by the great crocodiles of decrepitude and death'.
36. Even the gods are subject to this impermanence; cf. the discourse between Bali and Indra, MBh XII, 224.
37. cf. Viṣṇu Pur I, 2, 26, etc.
38. Bhāg Pur IV, 11, 19.
39. AV XIX, 53, 3.
40. Akāla, Mait U VI, 15.

41. ibid.
42. SU VI, 1.
43. SU VI, 2.
44. SU VI, 3.
45. SU VI, 5–6.
46. cf. SU III, 2.
47. Sāntiparva (crit. ed.) 199, 11.
48. BG X, 33.
49. BG X, XI, 32.
50. Bhāg Pur III, 26, 18. cf. also Viṣṇu Pur I, 2, 14.
51. cf. op. cit., III, 8, 11, etc.
52. This intuition is of fairly ancient date; it occurs already in the Brāhmaṇas, where Prajāpati is identified with time and death. cf. L. Silburn, *Instant et Cause*, op. cit., p. 53 et seq.
53. Despite the other etymology 'the black (goddess)'.
54. Vākyap I, 3.
55. Vṛtti on Vākyap I, 3.
56. cf. *kālakāra* in the SU VI, 2 (and VI, 16), already quoted above or the 'lord of the past and the future' in the Kaṭh U IV, 13 (II, 1, 13).
57. cf. the notion of *nitya-anitya-vastu-viveka*, 'discerning between the temporal and the eternal' in Sankara, BS Bhāsya I, 1, 1. cf. also Vivekachudamani, 20.
58. cf. Māṇḍ U I, 1, 1 with the reduction of the past, present and the future to the *Om*.
59. cf. *The Doctrine of Sattvaśūnya* in the *Tattvatraya* of the Rāmānuja school (Chowkhamba Sanskrit Series, No. 22), p. 62: *sattvaśūnyam kālaḥ/ayaṃ ca prakṛti-prākṛtānām pariṇāmaheuh* 'Time is empty of being. It is (merely) the cause of the modification of nature and of its evolution'.
60. cf. BG XI, 32.
61. cf., for example, T. M. P. Mahadevan, *Time and the Timeless*, Madras, 1953.
62. cf. E. Frauwallner, *Geschichte der Indischen Philosophie*, II, p. 111, Salzburg, 1956.
63. Kālasamuddeśa, Vākyap III, 9.
64. Fifth century and early sixth century, according to Frauwallner.
65. cf. Tripurā Rahasya XI, 46.
66. cf. Vākyap III 9, 32; cf. also *Nyāyamañjarī* (Kashi Sanskrit Series, 1936), p. 123–7.
67. cf. Satyavrat Śastri, *Essays on Indology*, p. 174 et seq., Delhi, 1963.
68. cf. Vākyap I, 3 with Vṛtti, and III, 9, 3–8.
69. *Sahakārikāraṇa*, Vṛtti on Vākyap I, 3, etc.
70. *Nimittakāraṇa*.
71. cf. for example Yuktidīpikā, quoted by Satyavrat Śastri, *Essays on Indology*, op. cit., p. 192.
72. There is a certain correspondence between *trikāla*, triple time, and *triloka*, the three worlds.
73. cf. Vākyap III, 9, p. 56. K. A. Subramania Iyer (ed.).
74. cf. Vākyap III, op. cit., 9, 58.
75. Mahābhāṣya II, 2, 5, and Kaiyaṭa's Pradīpa.
76. cf. Kath U II, 10–11, etc.
77. cf., for example, BU IV, 5, 3.
78. cf. the competition of the vital organs, which is won by *prāna* since the other organs depend on it; BU I, 5, 21–3.
79. cf. BU I, 5, 22: 'As *prāna* is the central breath, so Vāyu (the air) is the central divinity. Other divinities interrupt their activity, but not Vāyu, Vāyu is the divinity which knows no rest.'
80. cf. BU I, 5, 23: 'This is why one must . . . observe one single practice. One must breathe out and in, in order to avoid succumbing to Mṛtyu the evil [one] . . .'
81. cf. BU I, 6, 3.

82. cf. the entire Prāṇāgnihotra Upaniṣad, which is based on this substitution. Annotated translation by J. Varenne (ed.), *La Mahāṇārāyana Upaniṣad et la Prāṇāgnihotra Upaniṣad*, Paris, De Boccard, 1960.
83. cf. Kath U II, 14 (1, 2, 14).
84. cf. CU VII, 24, 1, etc.
85. Quoted by M. Eliade in *Images et Symboles*, p. 113, Paris, Gallimard, 1952.
86. *Images et symboles*, op. cit., p. 112: 'By working in this way on his breathing, the yogi works directly on experienced time.'
87. See 'Kārma and the historical dimension of man', page 79 in this chapter.
88. *Cittavṛtti-nirodha*, YS I, 1.
89. cf. Y Vās III, 20, 29.
90. cf. Y Vās III, 60, 21; III, 103, 14, etc.
91. cf. Y Vās III, 60, 25–6.
92. cf. Y Vās III, 60, 171.
93. cf. L. Silburn, *Instant et Cause*, op. cit., p. 408 et seq.
94. cf. ibid.
95. YS III, 52: *kṣaṇa-tatkramayoḥ saṃyamād-vivekajaṃ jñānam.*
96. Vyāsa Bhāṣya on YS III, 52.
97. L. Silburn, *Le Vijnāna Bhairava*, p. 60, Paris, De Boccard, 1961. The quotation is a Unesco Secretariat translation from French.
98. cf. Abhinavagupta, *Parātriṃśikā*, quoted by L. Silburn, op. cit., p. 62.
99. *Digdeśakālaśūnya*, Vijñāna Bhairava, op. cit., Vol. 22, p. 76, where the experience of plenitude beyond time is still linked to the practice of respiration; also Vol. 24.
100. cf. BG IX, 19 and later Vedantic speculations. cf., for example, BS Bhāṣya I, 3, 19; I, 4, 3; II, 1, 27; etc.
101. cf. R. Panikkar, 'La Loi du *Karma* et la Dimension Historique de l'Homme', in: E. Castelli (ed.), *Herméneutique et Eschatologie*, p. 205-30, Introduction, Paris, Aubier, 1971.
102. Clearly, therefore, the sources which we shall cite as regards modern Indian culture are not so much modern books on history (which are in any case quite rare) as a certain, contemporary school of phenomenology.
103. cf. article quoted above, by R. Panikkar, for a detailed description.
104. See 'Time as the fruit of ritual action', page 63 in this chapter, the act of worship in the Veda.
105. cf. BU IV, 4, 6.
106. cf. BU III, 2, 13, etc.
107. BS Bhāsya I, 1, 5: *satyam neśvarād anyaḥ saṁsārī.* (Literally: 'in truth no other than the Lord (trans)migrates'.)
108. The diffrence being that *kāla*, in this case, is an external though encompassing power, whereas karma is the result of the specific history of each being.
109. cf. the two functions of time described by Bhartṛhari, Vākyap I, 3.
110. It is enough to quote Śivajī's role in the Maharashtra, the king who repelled the Moslem invasions (1627–80).
111. G. Dumézil, *Mythe et Épopée*, p. 239, Paris, Gallimard, 1968. The quotation is a Unesco Secretariat translation from French.
112. All the *Purāṇas* give, for instance, the genealogies and dynasties of the kings (*vaṃśas*).
113. cf. M. Eliade, *Le Mythe de l'Éternel Retour: Archétypes et Répétition, passim*, Paris, Gallimard, 1949.
114. cf. BG II, 31 and 33, etc.
115. cf. BG V, 12, etc.
116. cf. BG III, 20 and 25.
117. Dr Minoru Kasai, who is writing a study on Gandhi's idea of history, has communicated to me the results of his research, from which I have taken these four points.
118. YS Bhāṣya III, 51.
119. cf. e.g. MBh Strīparva II, 24, etc.

120. cf. e.g. MBh Ādiparva I, 248, etc.
121. cf. Vājasanayi Saṃhitā, 32, 2; BU III, 8, 9; Mah Nār U I, 8, etc.
122. cf. Viṣṇudharmottara I, 73, 1, etc.
123. Viṣṇudharmottara I, 73.
124. We are disregarding the divisions of the years from Jupiter onwards (Bṛhaspati). cf. L. Renou and J. Filliozat, *L'Inde Classique*, II, p. 725 et seq. Paris, Imprimerie Nationale 1951.
125. cf. Mait U VI, 14: *sūryo yoniḥ kālasya.*
126. Mahābhāṣya on Vārtika 2, Pāṇini II, 2, 5.
127. cf., for example, the traditional fast on the eleventh day of the moon (ekādaśī).
128. *Vedāṅga-Jyotiṣa*, 41.
129. cf. YS Bhāṣya III, 51.
130. cf. MBh Vanaparva 149; 188; Śāntiparva 69; 231–2; Manu-Smṛti I, 61–74; Viṣṇu Pur I, 3; VI, 3; etc.
131. The unit of measurement used is the divine year (*divya*), one human year being one day of the gods; thus a *mahāyuga*, or age of the gods, consists of 4,320,000 human years (cf. Kane, *History of Dharmaśāstra*, Vol. V, Part I, p. 688 et seq. Poona, 1958).
132. cf. M. Eliade, 'Le Temps et l'Éternité dans la Pensée Indienne', in: *Mensch und Zeit—Eranos Jahrbuch, 1951*, p. 219–52, Zurich, Rhein, 1952.

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Toward a Typology of Time and Temporality in the Ancient Indian Tradition

Raimundo Panikkar

A first intuition on the nature of time could be formulated by saying that time is lived or experienced as the ontological temperature of being, that is, as that which manifests the activity of every being, and consequently also its existence as intelligible and its degree of reality be it provisional or ultimate. In other words, time "is the revealer of all beings,"[1] it is the space (to use a conjugated metaphor) which makes possible the unfolding of beings. In this sense "time engendered the things that were and that shall be,"[2] it is (to borrow terms from different schools of thought) the exterior, visible, material, phenomenal dimension of every being: Brahman is "the author of time"[3] to the same extent that he is its destroyer.[4] The degree of reality given to time in the different schools of thought is the same as that given to beings. That is to say, where beings are considered as real, so also is time, and where things are considered as less real or as unreal, time has the same coefficient of reality. Time is almost never considered in itself, but almost always as the dimension of expansion, that is of 'temporality' of beings.[5] Time is that expansion which permits the phenomenal consciousness of beings and their extension in the material world (geography and history). The most widely used word to designate time today is *kāla,* but it appears only once in the *Ṛgveda* which speaks instead of *āyu* or *āyus* (cf. αἰών, *eon, et etiam saeculum*) which means the vital force, the time of life, the long life, the existential span or duration of every being.[6]

A second intuition which immediately follows from the previous one—although 'historically' it is found 'before' (but need we accept the 'occidental' schema as the paradigm?)—would be that time is the 'product' of divine or ritual action, by the very fact that it is this action which calls forth beings into existence. The reasoning is simple: time is the foundation of all action since there is no action without change and no change without time. "From time all beings emerge."[7] Now, all real change is a modification of the very constitution of beings. But only sacred or ritual action can, by definition, produce such a modification. "If the priest would not offer the fire sacrifice every morning, the sun would not rise."[8] In other words, it is sacrifice which both makes and destroys time; it is sacrifice which reenacts, but in the opposite direction, the sacrificial act of Prajāpati (the Father of the gods), that act by which, in sacrificing and dismembering himself, he 'created' the world.[9] Man, the immolated *puruṣa* is 'remade' by an act of 'decreation' which extends in time, or rather, time is the occasion for the progress of the world towards him "in whom the beginning and the end of the universe are united."[10] "He alone is inexhaustible time."[11] This means that time is not a 'given' but a product, that it does not arise from the order of quantity, but from that of

Raimundo Panikkar is Professor of Religion, University of California, Santa Barbara

quality, the same quality of existence itself. Each being has its own time, as it were; time is the great factor of solitude and isolation. In order to achieve communion, one must transcend time, one must pierce the temporal crust of beings. In time we are separated and fragmented.[12]

Later traditions reunited these two intuitions in the concept of *karman* which is *homologous* to the concept of historicity. Every action both produces *karman* and is the fruit of *karman*. *Karman* is a sort of condensation of time, a cosmic link of universal solidarity on that level of reality which we call precisely temporality.[13]

This leads us to a third intuition, often poorly understood and awkwardly expressed when, paying tribute to 'modernity', one tries to explain things so much in the perspective of the other that one forgets that the understanding of irreducible elements does not allow such 'reductionism'. We may translate an ultimate insight, but we cannot reduce it to other insights without depriving it of its character of ultimacy. We refer to the so-called circular conception of time and to the popular Indian conception of vast cyclical periods. The circularity of time does not imply that it is infinite but exactly the opposite, that it is contingent and limited, that it is closed, and hence in order to achieve or reach reality, one must shatter it, transcend it, escape from its grasp, break the circle. The cycle is not the symbol of infinitude but of finitude, not of opening but of enclosure. The circumference is indefinite only in a bidimensional world; and the geometrical metaphor means precisely that reality has other dimensions and that one must break the temporal encirclements (and not fall into another super-time) in order to save oneself, in order to reach being.[14] The metaphor of circularity also expresses the fact that from the point of view of temporality, the 'second' passage or circuit through the same point on the circle cannot be distinguished from the 'first' passage. In a word, points A and A′ are temporally identical: there is no 'second' passage or circuit through the same point. It is here that we should situate the problem of history and eschatology, even though in a sense that represents an original contribution to modern culture.

With the Sanskrit language as an example, we may perhaps grasp a fourth intuition: the primacy of the static over the dynamic, of being over becoming. It is striking to find in Sanskrit the positive value ascribed to most terms of a static nature vis-à-vis those which express movement and change. Its grammar is based on the primacy of the substantive over the verb. The entire structure of Sanskrit rests on juxtaposition, on apposition, on repetition; it revolves around the noun. A majority of verb forms are substantivised. Adjectives are used to express functions which, in occidental languages require auxiliary verbs. Adverbs of time, such as yesterday and tomorrow, the day before yesterday and the day after tomorrow, three days before and three days later, are in each case the same word in Hindi, the essential point being the

distance from the center without giving priority to an orientation toward the past or the future. But here we must understand the situation in its own terms. This primacy of the temporal is not a temporal stasis. The stoppage of time would be death if it did not carry with it access into (or rather the discovery of) what is currently designated in negative terms such as the intemporal, the immutable, the immortal.[15] In keeping with this, we should also cite the divine attribute of the destruction of time as the path toward liberation. Kālī is also the goddess of mercy . . . .

Buddhism is a world in itself and presents practically the whole range of conceptions of time. Limiting ourselves to the intuition of the Buddha and within the horizon of India already indicated, we could perhaps add another fundamental experience: the radical relativity (*pratīyasmutpāda*) of the entire possible human experience, and hence of 'reality' in every sense accessible to man. "If you see the Buddha, kill him" says a later tradition. Here time is not gone beyond or transcended, it must be killed, eliminated. There *is* no transcendence because there is no springboard sufficiently solid from which to jump out of the human condition. *Nirvāṇa* represents the total extinction of all that can be burned, destroyed, extinguished. Hypothetically, if 'there is' any reality whatsoever outside, we could know only one thing about it, that it is *not* as we might imagine or think it *to be*, that it has nothing to do with whatever meaning we might give to the word being, not even if we consider it as transcendent. There *is* nothing and certainly there is not nothing. To say that the other shore is not, is as incorrect as saying that it is. An ontic silence is called for.

Time then is the symbol of being, of all that is; being and time are closely linked. Time as such is the best proof of the contingency and impermanency of everything. Time is neither rectangular nor circular, but punctual, even though it would again be more exact to say 'nonpunctual'. Being is time and time is being.

All is nonpermanent, *sarvam anityam* (or in Pāli: *sabbe saṅkhārā aniccā*), all things are transitory: here indeed is the central Buddhist conviction regarding the nature of time.

1. Gauḍapāda *Kārika* I, 6, 8.
2. *Atharvaveda*, XIX, 54, 3.
3. *Śvetāśvatara Upaniṣad*
4. Cf. *Gītā* XI, 32, etc.
5. An exception to this would be the two late hymns: *Atharvaveda* XIX, 53 and 54.
6. *Ṛgveda* X, 42, 9.
7. *Maitrī Upaniṣad* VI, 14.
8. *Śatapatha Brāhmaṇa* II, 3, 1, 5.
9. Cf. *Ṛgveda* X, 90, etc.
10. *Śvetāśvatara Upaniṣad* IV, 2; *Maitrī Upaniṣad* IV, 6; *Gītā* X, 32.
11. *Gītā* X, 33.

12. Cf. R. Panikkar, *Le mystère du culte dans l'hindouisme et le christianisme* (Paris: Cerf, 1970), pp. 43–52 on "Le culte et le temps."

13. Cf. R. Panikkar, "The Law of *Karman* and the Historical Dimension of Man," *Philosophy East and West*, 23, no. 1 (Jan., 1972): 25–43.

14. One is tempted to quote Augustine's sentence: *ut ergo tu sis, transcende tempus* (*In Ioan.* tract. 38, n.10).

15. Cf. *nityānityavastuviveka* of the Vedāntic tradition, vgr. in Śaṅkara, *Brahmasūtrabhāṣya*, I, 1, 1; etc.

Time and Sacrifice–the Sacrifice of Time and the Ritual of Modernity*

Raimundo Panikkar

*ABSTRACT***

In most traditions, liturgical time does not tally with ordinary, everyday time. The latter is governed by the horizontal succession of daily occurrences. The former would like us to enter into contact with a privileged moment, which appears to be discontinuous when seen from the perspective of linear-chronological time. Liturgical time follows a vertical and/or a circular time-pattern; it is qualitative, ambivalent and polydirectional (e.g. it moves 'backward' as well as 'forward').

Theologies of every kind have tried to explain liturgical time by means of various hypotheses, most of which rely on the objectivity *of the event, fact, revelation, experience or any other chronogenetic moment. The modern sciences of religions, on the contrary, have generally tried to explain liturgical time by referring to the* subjectivity *of the believer.*

Using the paradigms of sacrificial time in the hindu and christian traditions, I try to show that these hypotheses - the objective and the subjective - derive from the philosophical assumptions which underlie traditional theologies and the classical history of religions

*A somewhat unusual system of capitalization, partly explained in the text, has been retained at the request of the Author. *Eds.*

**I understand the abstract literally, i.e., that which remains once all that the article says has been abstracted. As for the summary, see the Introduction.

respectively. This paper suggests a possible synthesis by presenting the traditional category of sacrifice as still valid for modernity (although adequately transformed).

Further, this study maintains that we should overcome the subjec-object dichotomy at the epistemic level and the natural-supernatural dualism on the ontological plane when dealing with ultimate human problems. The nature of time is not an a priori *in our minds or - if we extrapolate - in the phenomena themselves, nor is it an* a posteriori, *i.e. detectable only as a given external fact. Time is at the crossing point between consciousness and matter.*

Finally, I hope to provide a pertinent example for our contemporary situation of a cross-cultural study which tries to relate two different traditional religions and the present-day degree of awareness. My expectation here is one of cultural fecundation, trying to find a field sufficiently wide and deep to allow a cross-fertilization between tradition and modernity.

INTRODUCTION

A fundamental reflection on time, if it does not beg the question from the very beginning by assuming that we already know what time is, has to take into account what Man has understood time to be.[1] Because neither Man nor time are objectifiable entities, Man's self-understanding belongs to what Man is, and similarly Man's opinions on time cannot be excluded from a fundamental research on the nature of time. In other words, we have to draw from the global human experience if we want to say something about that universal deity - speaking with the Vedas - that we call by the name of time.[2]

The immediate purpose of this paper is threefold: first, to show the intimate connection between the human experience of time and the equally human practice of

sacrifice. Here my remarks will be based mainly on the hindu and christian traditions, although they will point to contemporary Man.

Second, to alleviate the temporal discomfort of Modern Man -- who longs to overcome time but does not know how to do it -- by a hermeneutics of sacrifice as a mediation between tradition and modernity.

Sacrifice is here understood as the basic human ritual and my thesis will be that sacrifice is a set of actions by which Man tries to overcome time, i.e. either escape, deny or integrate it. My second thesis is that this also applies to contemporary Man.

By time I understand the human consciousness of the sequences of events through which Man deduces the durational structures of himself and the World.

My working hypothesis goes tentatively like this: Man is a temporal being, a being immersed in time, made of time, and yet constantly dissatisfied with his temporal existence. He tries by every means possible to overcome the temporal character of his being. Cultures have traditionally done this by proclaiming "above time a brimful vessel"[3] and by exhorting Man to reach the supra-temporal;[4] in other words, by postulating a separate reality in which "there shall be time no longer."[5] By contrast, modern Man has broken the jar of eternity and found it empty.[6] Nevertheless, he has not been cured of his nostalgia for it nor been able to subdue his temporal unease.[7] Belief in the transtemporal may be a disease, but Man has so far found no remedy for it. A hermeneutics of sacrifice may help us to understand the continuity between tradition and modernity, and thus help us to discover the proper ritual for coping with the ever-recurrent problem of Man's discomfort with his own temporality.

One could ask at the very outset: but why does one want to overcome time? What exactly does that mean?

It seems to be a universal human fact that Man is the animal that wants to jump

over his milieu. Like a fish striving to come out of the water or a bird flying outside the air or a beast going beyond the earth, Man seems to want to leap above space and, specifically, beyond time. And even if this is deemed to be an impossible and alienating dream, it has to be explained to the human animal that he should be fully satisfied to live in his element. I have cited the three main elements: water, air, earth. Perhaps that fourth element, fire, is the constituent of Man - and Agni, an "envoy among the Gods,"[8] "navel of the earth,"[9] "king of the waters,"[10] although "the waters are his mothers,"[11] "sustains the sky,"[12] "maintains the earth,"[13] and "has linked the two worlds with the light of heaven."[14]

It is not a trifle to be Man: a time-ridden being, thirsty and hungry - to shed his temporal skin.

I - TIME SACRIFICED

1. A human invariant: the tension between the eternal and the temporal

Among the many theories on the nature of religion and the origin of sacrifice we find a human invariant - although, of course, any given expression of it has to be couched in a concrete language, thus reflecting only one particular philosophical view. But this inherent limitation of language should not prevent us from tackling a universal problem.

This human invariant can be identified as the constitutive tension in human consciousness between being and becoming, the one and the many, identity and difference, the divine and the human, change and continuity or, also, between time and eternity, understanding the latter as either time-less or time-filled.

Parenthetically, I would note here my conviction that handling this constitutive tension in dialectical terms expresses both the strength and the weakness of western culture, and that other traditions approach the problem differently.[15] Only a complementary approach can help us to overcome the increasingly dangerous cultural neo-colonialism of our times. *Sed satis* for my purpose here.

This human invariant has its source in the fact that the awakening of human consciousness carries with it an awareness of Man's limitations which entails, at the same time, an almost irresistible desire to peer over at the 'other shore'.

We could reduce these limitations to three: of knowledge (power), of space (communication) and of time (fullness). Man does not know everything, he cannot go everywhere, and he cannot encompass the complete temporal span of his own existence. The awareness of Man's limited knowledge of things and his limitation in space are ultimately not as discomforting as the awareness of his temporal limitation. We can easily understand and accept that we cannot know everything and reach everywhere: we realize that we are neither all-powerful nor the entire universe. But the awareness of the time limitation implies not only the impossibility of gathering together the past and the future into the lived present, but also the shocking discovery of a normally inexperienceable limit *a quo*, birth; and another, still more intriguing and equally inexperienceable limit *ad quem*, death. This temporal limitation touches the very core of Man and is not so much a consciousness of (a tolerable) finitude, as one of (an irritating) imperfection. That is to say, we experience the limitation as something painful, humiliating, as something that should or need not be, as an obstacle to be transcended, as a punishment to be suffered, or as an inherent human condition we must learn to accept. Birth and death are two limiting situations which become challenge situations the moment we think about them. In short, we experience this limitation as a problem which demands either its solution or its dismissal as a problem. The fact that we cannot even possess ourselves, as it were, that we cannot encompass fully our own existence, that our ego has to trust on feeble memory to gather some fragments of its own past, and is reduced to mere speculation in order to ascertain even a few hints about its own future, remains a standing insult and a constant threat to Man's self identity. How can I be sure of my own present ego if last year's now seems so different and that to come so unpredictable? My real ego cannot be only today's ego, and yet this seems to be practically all that is left to me. The most astonishing thing, however, remains the fact that we

are conscious of this split so that, in a sense, in our present there is a certain presence of our past and our future. Human consciousness seems to be peculiarly transtemporal.[16] In a certain way, if I want to be my-self, I must somehow gather up all three times and, most probably, transcend time altogether.[17] In sum, conquering time - i.e. mastering my temporal dispersion - seems to be the fundamental condition for being my-self. But how to achieve it?

2. Ways of handling the tension

I am assuming here that there is a tension felt between the temporal present and at least the totality of our temporal existence, and that there is a human urge to cope with this tension. I say 'at least' because a traditional statement of this tension speaks not only of gathering past, present and future, but of transcending time altogether. It speaks of time and eternity.[18] Here we may also recall the tremendous rise of historical consciousness in the modern West. History tries to ease the tension between past and present and also between present and future, performing the same function in both cases, namely that of linking time with eternity or at least bringing together the different fragments of time.[19] There seem to be several ways of solving this fundamental human unease (*duhkham*). We can classify these ways as A) attempts to overcome the tension, or B) efforts to put up with it.

A) The first alternative offers two ways out: either a) denying the very basis of the tension so that it does not have to be surmounted, or b) trying to transform the conditions of this tension so that it can be conquered.

The first way out, a) is represented by the typical buddhist solution of denying altogether the existence of the patient; if everything is impermanent and each moment new, emerging from utter nothingness, as it were, the cause of the trouble is eliminated. This is the *anātmavāda* preached by the Buddha, the teaching of the non-existence of the ego, soul, *ātman* and, in general, of any kind of (permanent) substance. To be sure, the buddhist denial of the tension is not a mere intellectual discovery: it is rather a personal conquest, an experiential truth that one *realizes*

and thus in a way produces. To dis-cover that *saṁsāra* is *nirvāṇa* implies that one has actually *converted saṁsāra* into *nirvāṇa* - and this buddhist conversion is not just an academic amusement. The tension is not transformed but positively denied.

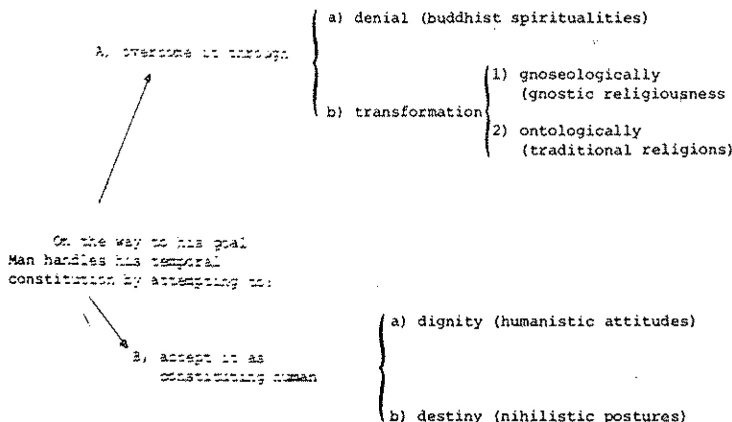
The second way out, b), transforming the condition of the tension, offers a double possibility: i) either being is ultimately identified with consciousness and then we have a fundamentally gnoseological transformation, or ii) not, and then, we have a predominantly ontological one.

The first case, i), is exemplified by the typical vedāntic system, which affirms that this is a question of enlarging, expanding, piercing through the ego until consciousness of the *ātman* emerges, which then realizes its identity with *brahman*, the divine principle, without beginning or end, the immortal, the timeless. The *gnostic* discovery of our true or real nature also belongs here.

In the second case, ii), we have the majority of the religious traditions of the World, which believe in the possibility of a real transformation of Man so as to overcome the tension between the temporal and the eternal, this latter standing for any authentic victory over merely temporal existence. As to the ways of this transformation, they are as numerous as the many different religious traditions themselves.

B), the second classification of the original alternative ways of dealing with the problem of Man's temporality, dismisses as an alienating and cheap consolation any attempt to escape from the constitutive limitation of the human being. Instead, this alternative accepts our ineradicably temporal human condition. This acceptance can be seen either a) as noble and beautiful, so that the humanist is the real hero,[20] or b) as a realistic acknowledgement of the human condition so that the only coherent and true human attitude is that of despair and absurdity.[21] We could call the former attitude a) *heroic humanism* and the latter b) *radical nihilism*.

The following scheme expresses what has been mentioned so far:



3. Sacrifice as a universal means of handling tension

The foregoing scheme is neat and clear, but it is too exclusively theoretical: historically, in point of fact, the major human traditions are hardly logically consistent. Life is more powerful than logic, and logical constructs are strictly valid only for logical entities, although, indeed, they may be helpful at the level of description.

No extreme position is stable. As the chinese saying has it, nobody can stand for very long on his toes. A rigidly coherent position seems to ignore both human weakness, which prevents a posture of constant heroism, and human wisdom, which has surmised that truth is not so esoteric and inaccessible that simple people cannot attain it. And in fact, most of the extreme positions have in one way or another reverted to a kind of middle path.[11]

Radical buddhism has been forced to speak about the ineffable; orthodox vedānta has been obliged to distinguish two planes of existence; various techniques of salvation have had to relax their rules and commandments; extreme humanisms have had to accept many models (and even non-models) of being human; formerly radical

nihilism has recognized that Man is capable of growth and is thus open to transcendence, which may then become an object of hope.

This implies that all those disparate attitudes have something in common, namely a set of rules, devices and means - even if they are only convictions or intuitions - by which the meaning or end of life is reached. In other words, there seems to be a consensus that the limitation of the ego exists only for the time being, i.e. for being in time - even if this is all that there is. Such a recognition opens up the way toward the healing of this scar of temporality.

Coming specifically to our problem, even the most radical views seem to accept the fact that something must be *done* in order to possess authentic humanity and reach the full meaning of human life.

This meaning may be emptiness or a better future, or eternity, justice, revolution - but in any case the human condition demands an act or a series of actions by which it grows, develops or changes into another stage. In other words, *ritual* is needed to confer upon Man the possibility of disentangling himself from the trappings of the provisional.

Let me explain why the word *ritual* is being used here. The inconvenience of a language which tries to make sense for a plurality of world-views is that sometimes one is forced to remain vague and almost structuralistically abstract. The advantage, however, is that sometimes one may get at the very core of things. The case in point here is the recovery of the profound meaning of ritual, so often overshadowed by ceremonies and paraphernalia, not only in ritualistic practices but also in the philosophical and theological universes.

Ritual is that act by which Man tries to reach, obtain, express, or do what is otherwise inaccessible by any other means. To worship the moon can be a ritual as long as there is no other way of communicating with her on a particular level. To say - obviously with faith - a prayer, while taking a medicine, is a ritual as long

as one does not believe in the total efficacy of biochemicals. To honor the king is a ritual as long as the people believe that the ruler has power that they cannot control. An embrace of peace can be a ritual when it expresses more than what I can say and do, and a meal becomes a sacramental rite when it not only feeds the body or nurtures the mind, but also instills grace into the commensals; a particular kind of dress becomes liturgical when it symbolizes what otherwise is not visible or directly graspable - to offer some examples instead of elaborating a theory. It is on this common ground, with all the ambivalence it possesses, that the nature and function of sacrifice is situated. This is what we shall have to explore.

a) *A small phenomenology of sacrifice*

A small phenomenology of sacrifice would yield the following features:

1. Man is unstable in his human situation. He wants something more and even something else.

2. In his first attempt to get this *more* and *else*, he stretches his hand out in space in order to obtain the desired fruit, and waits in time in order to reach the expected maturity.

3. Soon he realizes that there are coveted things beyond the reach of his hand and that temporal flow alone does not bring the expected results. Something else has to be done: the machine reaches farther than the hand and internal effort is required to obtain the glory and strength he desires. No wonder that an aura of sacredness surrounded the first material tools and the first spiritual exercises.

4. These two efforts cannot be made alone. Man requires the help and collaboration of others invested with higher power: the hero, the elder, the ancestors and the God. They have a power that ordinary Man has not. Entreaty and supplication, immitation and emulation appear on the scene. The ritual appears.

5. Man comes of age when he makes the first unexpected and somewhat non-logical discovery that the human fullness he longs for cannot be obtained by a mere prolongation of the means at his disposal. Machines and techniques do not help. A rupture of planes has to take place; Man has to jump outside his given situation, he has to be initiated. He has to perform an act or a series of acts that will make this jump possible, and so reach the higher value, state, condition, etc. This is the place of the sacrifice: the act by which Man *transcends* his factual human situation and reaches what he wants - health, riches, a prosperous family, heaven, wisdom, joy, divinity....

In other words, the action by means of which Men believe they will fulfill those desires which they cannot achieve alone, is the very core of the sacrifice. It is that ritual which breaks the planes in order to reach transcendence.

6. This act always takes the form of a rupture: something is destroyed, cut, burned, offered - precisely sacrificed - in order to reach the transcendent.

I have already indicated the pure phenomenological way of understanding transcendence: that which is beyond the actual reach of a given situation, whether it exists by itself or not. It may very well be that the transcendent has an existence of itself or that there is an initiative coming from it. In fact, an analysis of many religions shows that often it is not Man who takes the initiative or even wants the sacrifice. Often Man escapes, hides himself and avoids contact with the transcendent, and it seems as if it is the latter which compels Man to such religious acts. Even in these cases, what phenomenology detects is the human feeling of a divine initiative and the human response, positive or negative, to the call of transcendence.

7. A philosophical phenomenology, further, can discover that trait which we are trying to formulate as the basis for the thesis of this paper, namely that the sacrificer seeks to deal with the temporal situation of Man in one way or

another, and precisely by this fact, to save, redeem, enhance, make happy, enrich...the human being.

If this means realizing that there is no soul whatever to be saved, the sacrifice will take the form of an enlightenment, which will reveal the emptiness of what we had previously held as substantial. The buddhist forms of meditation, of which the Zen practices are an acute example, tend to transcend the mental and even reflexive consciousness in order to reach the goal which is the extinction of all (that we think) there is, including 'being' and of course, the 'goal'.

If it is a question of transforming our situation, whether in the gnoseological or the ontological order, the sacrifice will take the form of a mental sacrifice, or of an ontic sacred action. The 'mental sacrifice' of the Bhagavad Gītā[23] and the Brahma Sūtra[24] as well as the living sacrifice of an 'intellectual worship', of St Paul[25] and the 'spiritual sacrifices' of St Peter[26] with their corresponding traditional interpretations[27] belong here. That the sacrifice really transforms the structures of reality we can cite the traditional understanding of it in most of the major religions.[28]

If, on the contrary, we have simply to accept our humanness as either our dignity or merely our destiny, again it will be the sacrifice that will open our eyes to our factual situation and remove the veil of ignorance and superstition: from education to revelation could be the name of this sacrifice. We refer here to an immense amount of psychological, anthropological and sociological literature, plus philosophical and theological studies trying to help the human being to work out or recover his fullness, liberation or happiness.

I do not call these acts sacrifice because of a wish to reduce to a common denominator the rich variety of human efforts to cope with Man's condition, but because all these acts are intended to perform the same type of function. We might remind ourselves here that no one has a monopoly on names. Not too long ago, for example, christians considered the word 'grace' exclusively theirs, inasmuch as grace was

understood as saving grace, participation in the divine nature, and as such the unique prerogative of those redeemed by Christ, the only mediator. Now, when dialogue with other religions becomes unavoidable, christians must reconsider this position, since there is no other word to express the similar state of affairs that exists in other religions. Hence, although interpretations may differ - and such differences have their rightful place - still, no one can avoid speaking about the grace which is claimed to exist also outside christiantiy. Similarly, we shall have to speak of sacrifice outside its traditional religious context if we want to understand the phenomenon of sacrifice in all its human depth.[29]

Now I shall describe what is meant by sacrifice in the two traditions I have chosen to discuss, in order to have a basis for the subsequent considerations.

b) *The vedic conception of sacrifice*

We may describe the quintessence of the vedic tradition by mentioning a few traits.[30] It is by the sacrifice that not only Men but also Gods acquire immortality.[31] By means of the sacrifice, Man reaches heaven,[32] freedom,[33] happiness,[34] purification of sins,[35] superiority.[36] It is the sacrifice that helps Man overcome his earthly condition.[37] By performing the sacrifice, Man reaches the navel of the World.[38] Authentic existence is reached only in and through sacrifice.[39] By the sacrificial act, Man reaches the shores of the other world,[40] and is saved from the grip of time.[41] In point of fact, the brāhmanic literature will stress that Man is capable of attaining the full span of his life,[42] for "Man's immortality is a full life-span."[43] The subsequent *jñānic* spirituality will go a step further and proclaim that through the spiritual sacrifice Man is saved from time altogether, that is, released.[44] To sacrifice is the highest action because in it Man collaborates with the World and the Gods to sustain the entire universe.[45] In a word, all these and many other utterances make sense only if we discover in sacrifice the ultimate texture of reality. Namely that act by which the universe has come into being[46] and by which it is maintained.[47]

One trait emerges from all this: sacrifice is every act by which Man partakes in the power of a supratemporal agency. He reaches beyond the immediate present into the recesses of the past, sometimes even to the beginning of time, and also into the reservoir of the future, in some cases even to the end of time. The sacrificial act may also serve to acquire this or that earthly desire, but ultimately it differs from every other action because it stretches beyond the ordinary time-span and, rescuing Man from his servitude to time, truly liberates him.

c) The christian conception of sacrifice

Let us now summarize the christian-biblical tradition.[48] Central to the christian tradition is the importance of the sacrifice of Christ as the unique act, which once and for all gave new life to the World.[49] It is the sacrifice that was already prefigured in the sacrifice of Abel,[50] Melchisedech[51] and Abraham.[52] It appears as well in the sacrifices of other religions.[53] Christ is the High-Priest for all humanity.[54] In reenacting the Sacrifice of Christ in the liturgy, the christian is not duplicating his act, nor simply commemorating it, but entering into a relation with that act which was at the beginning of the World, has redeemed the cosmos and continues until the total divinization of the universe.[55] For this reason the christian sacrifice forgives sins,[56] has power of impetration and expiation,[57] and its fruits can reach not only the living but also the dead.[58] That God will ultimately be all in all[59] is not something that will come about automatically, but is the result of the action of Christ, priest, i.e. mediator (not just intermediary) of all creation.[60]

A single trait also characterizes the christian understanding of the sacrifice of Christ and of the christian, namely that sacrifice is an act which transcends time and space, an act by which past sins are forgiven and future grace is treasured, an act which connects us with the beginning of the World and has eschatological repercussions.[61] Every christian who shares in the mystery of Christ by means of the sacrifice, lifts up his life into the life of Christ himself, and by doing this, he shares in the mystery of the entire 'cosmotheandric'[62] dynamism of the universe.[63]

d) *The sacrifice of time*

The pattern underlying these two traditions, as well as many others, appears with clarity enough: Man, the prisoner of time, overcomes his temporal limitation by participating in an act which in itself has transtemporal significance. The ritual of sacrifice *saves* Man from being drowned in his everyday 'temporicity'. Performing the sacrifice, Man becomes a contemporary of the Gods, and of the God's creative act at the beginning and end of this universe. By sharing in the sacrifice, the quotidian becomes the tempiternal, i.e. that form of existence which does not so much encompass as pierce the three dimensions of time, and yet it does not abandon them entirely in order to uncover the transtemporal core of time itself.[64] Sacrifice, then, is an act by which time is overcome; it is fundamentally the sacrifice of time. Time is sacrificed, destroyed, pierced through, and a transtemporal core uncovered. But again time exists because of the primordial sacrifice that has called the temporal reality into being. Thus one could sum up at least these two highly representative traditions saying that "time both springs from and dies through ritual".[65] It is sacrifice that makes time, and ultimately creates this temporal World, and it is also sacrifice which destroys time and enables the World to reach its tempiternal core. Let me be emphatic on this. I think that if we lose sight of this primordial experience we do not only do injustice to most of the religious traditions of mankind, but automatically convert our almost immediate ancestors into primitive superstitious and irrational people, not only cutting ourselves off from understanding them, but undermining the very ground where we stand. Temporal provincialism (only modern Man counts and has got the right opinions) is worse than spatial ghetto mentality (only christians, only Americans, only blacks...).

When the christian or the hindu believer performs the sacrifice, he may have any number of immediate intentions, which may sometimes blur its ultimate meaning. Nevertheless, it is the latter, the underlying and deeper intuition that vouches for the perseverance and intensity of sacrificial action. Through the sacrifice, believers not only acquire merits, favors and forgiveness, but also and chiefly they reach salvation, i.e., an ontological realm which would otherwise be closed

to them. They come into contact with the beginning and end of time, with their ancestors, and with the eschatological situation of the universe. They collaborate in the functioning of the World, and in a certain sense they feel that not only are they not wasting their time, but on the contrary, they believe they are performing the most fruitful action for themselves, for their fellow beings and for the entire World.[66] In fact, the traditional sacrifice does not save or rescue Man from the World, but saves the World - and thus also Man. To kill time is not to waste it, but to pierce it in order to extricate the everlasting from the bondage of the perishable.

In terms of the broad horizon of traditional religions: in the sacrifice, time itself is sacrificed in order to make space for a transtemporal mode of existence. Man puts his own time, and time as a whole, on the altar of sacrifice and there immolates it, so that once time is sacrificed, Man is liberated from its grasp, i.e. he overcomes death, and the World can reveal its transtemporal status. It constitutes the dignity of Man to be able to perform this act.[67] And although he cannot do it alone, Man steers the cosmos, so to speak, to its proper transtemporal destination.

Now, the popular understanding - the mystics being the clear exception - of the non-temporal status of reality, is one of a supra-temporal if not even post-temporal reality into which the believer enters - easily forgetting that the kingdom and brahman are within.[68] The secular mentality, on the contrary, comes closer to the genuine religious insight, interpreting the non-temporal not as supra- but as transtemporal. And this leads us straight into the next step of our fundamental reflection on time.

II - THE SACRIFICES OF TIME

1. The intemporal nature of the temporal act of consciousness

Before proceeding futher, let us insert an ancillary philosophical reflection.

The act of consciousness is certainly a human act. It is a process that *happens in time* and is also *dependent on the time* in which it happens; but as such it is *intempóral.*

The act of consciousness happens *in time* in the sense that all of our concomitant actions are subject to time: when I am conscious, the clock does not stop, my breathing continues, my stomach functions, the sun follows its course, etc. The conscious act happens during that time.

The act of consciousness is also intrinsically dependent *on time*, i.e. on the time in which it happens. It is not irrelevant that a conscious act happens at one time or another, because the act itself is a function of the times in which it happens. The actual consciousness of a contemporary of Yājñavalkya is different from the actual consciousness of a contemporary of Heidegger, because the temporal factor belongs to the act itself, so that its temporal coordinates condition the very nature of that consciousness. In fact, consciousness does not consist in a mere formal structure of thought, but is the integral fact of being conscious of something. Now both the 'something' of which we are conscius and the 'someone' having consciousness are subjected to time. The subject of this being conscious is the temporal and historical person, immersed in his temporal situation. Consciousness - as far as we are conscious of it - is always a person's consciousness, and this person, the conscious subject, is a temporal and even a historical being. Even when we attribute consciousness to the God and/or the Gods we make them enter into the sphere of time. Furthermore, consciousness is representation, i.e. that power which reflects something by being aware of it - and there is no way of defining consciousness outside of consciousness itself. This something is what we call reality, for reality is that which consciousness directly or indirectly represents. Now, the conscious reality of Yājñavalkya's time - and thus of Yājñavalkya - is different from that of Heidegger's time - and thus of Heidegger. This applied also in the most extreme idealistic interpretation of consciousness. Every act of consciousness - by definition - reflects reality, even if this reality were only a projection of the conscious act itself.

On the other hand, the act of consciousness itself is an *intemporal* act. Notwithstanding the two facts just mentioned, namely that as act it shares in the temporality of every human process (Man is a temporal being); and that as consciousness of reality it depends on the temporal reality itself (Reality is temporal) - it remains nevertheless that *quo* act of consciousness, it is not affected by time. When I become conscious of something, I do not become conscious of temporality. The act of consciousness - when consciousness clicks - is an intemporal moment. An act of consciousness - as such - has no precursor, and no sequel. At a second moment, I may become conscious that I was conscious of something, and then situate the first act of consciousness in space and time, but this is after the fact (of consciousness) and another act altogether. This can be seen very clearly by the constitutive impossibility of measuring any primary act of consciousness by any apparatus physical or even mental: first, we can measure only the effects (of the conscious act), and secondly the act of measuring is already another act, not only different from the original act, but even modifying it. The difference here with any other act or phenomenon is that the measuring action cannot but be of the same nature as the measured one. We can measure protons by their mass and velocity, for instance, but we have to measure the act of consciousness by another act of consciousness, in spite of all the intermediaries we may put inbetween.

But I am saying more than that the act of consciousness is temporally unmeasurable. I am saying that the representation or presentation, the appearing or manifestation of reality that constitutes a conscious act, as such, is untouched by time. A conscious act dawning upon me is like a new creation. I know on subsequent reflection that a moment before, I was not conscious of what was not yet there: I know that my existence is temporal and that what I am conscious of, namely that reality, which presents itself in the conscious act, may not be an eternal reality, but the act of consciousness itself, that act which creates, uniting and separating a subject and an object, is of an intemporal nature. There is a timeless *ecstasis* behind any true act of understanding. There may be other acts preceeding my particular act of consciousness and many others may also follow it, but there is nothing in the act proper that allows for a πρότον or a ὕστερον, a *prius* and *posterius* of temporal

nature.[69] Moreover, precisely because we have not a perfectly conscious act, because we are not pure consciousness, we go on living in time. Could we become pure consciousness or see God face to face, to rephrase hindu and christian terminologies, we would jump outside temporal reality altogether - and we do it, 'momentarily', each 'time' that consciousness dawns upon us.

Saying this, I am not taking issue with Heidegger's analyses or with the buddhist theory of momentariness, the yogic practice of stopping the flow of the mind, the magical or shamanistic device of bringing the World to a standstill, the christian belief in eternity or the phenomenological idea of pure awareness. I am describing a fundamental human experience, which may be at the basis of these as well as many other worldviews. I am stressing the fundamental human experience that temporality is a fact of consciousness, but that the act of consciousness *qua* act of consciousness has little to do with temporality.[70] The act of awareness differs from the reflective act of becoming aware of one's awareness, and also differs - but is not separable - from the object of awareness. It is an act that has no space or time. We may call it instantaneous, but this instant cannot be considered a unit of time, for no amount of these 'instants' would ever constitute temporal succession. Were it not for extrinsic and indirect devices, we would not be able to discover that the act of consciousness happens in time. And in fact the so-called pure sciences often claim to be intemporal. 'Three and two are five' may formulate an intemporal statement when devoid of its extramental truth (three angels and two Gods are five 'nothing'), and regarding a formal ideal content in Man's consciousness. Newton's or Einstein's physical laws may be intemporal only as long as they do not touch the real, i.e. refer to actual physical events.[71] And even pure formalism depends on the structure of our mind and our mind does not need to be eternal.

2. The three ways of overcoming time

We have described Man as a being having a thirst to overcome time and also as possessing the belief in the possibility of doing so. Now, there are three human acts by which Man has traditionally tried to overpower the dominion of time, or at

least to master the temporal yoke. There are three temporal ecstasies, as it were, three human victories over time. One tries to encompass the flow of time by knowing everything that *is* (past, present and future), another wishes to jump outside of time, losing all consciousness of it by falling in love (reaching the intemporal), and the third claims to transform time itself or at least to find its soul by working within time (piercing it through).

In order to be brief and to the point I am going to skip philosophical and historical analyses and use what I would like to call a phenomenological irony: *cum etiam vita universa ironiam habere videatur* the romans knew well as expressed by the spaniard Quintilianus in his *Institutio Oratoria*.[71]

a) *Jñānamārga*

The first, and most sophisticated, is the *way of gnosticism:* saving knowledge, *gnōsis, jñāna,* visio...If we really succeed in knowing authentically, this very act will make us independent of time, or put us outside it. The heap of facts that we know and the amount of knowledge that we possess are certainly not removed from the grip of time, but *pure* knowledge and intellectual intuition are just as certainly time-transcending. The sage is one who has already crossed to the other shore of the river of time.

This ideal has haunted Man since he discovered himself to be *homo sapiens*. Not only gnostics, alchemists, mystics and occultists have had the longing for saving knowledge, but sober scientists and pure philosophers have also harboured the dream of one day deciphering the mysteries of the real, not just for the fun of it, but because liberation, salvation, justice, happiness, truth are believed to be behind that knowledge. Enlightenment is a word of many meanings, but most of them apply here. For the Man who really knows, past, present and future will have yielded their hidden and menacing power; supersitition and exploitation will be done with; the kingdom of Truth will emerge. Ignorance is the archenemy and education the sociological idol. Whence, otherwise, comes the sacred aura of futuristic studies?

Once knowledge has discovered all secrets hidden by time, Man is no longer fragmented in temporal bits and pieces. And what was the privilege of an immutable God becomes the utopian model of the enlightened citizen, the perfect scientist, the true philosopher, the all-knowing sage, the *jīvanmukta*.

b) *Bhaktimārga*

Love, *agapē*, *bhakti*, *amor* is another intemporal human experience. The genuine act of love seems to be untouched by the temporal factor. That love wants eternity is something every poet knows and sings about: it makes no sense to want to love for five minutes; this is not real love. It is something else again, of course, that love may fade away after five minutes.

If the sage is the model of the first way, the saint is the ideal of this second attempt. The saint is the genuinely happy and perfect human being; he is lord over time. The saint is above the miseries of time and the temporal is here synonymous with the transitory, fallacious and ultimately contemptible. Salvation and happiness are only to be found above the fleeting and deceptive appearances of things temporal.[73]

It is not surprising that many religions have stressed either knowledge or love as the way by which Man reaches salvation, liberation, happiness, fulfillment. However this may be, the salvific effects of both paths are linked to overcoming the flow of time and being freed from the bite of temporality, *saṁsāra*.

c) *Karmamārga*

There is yet another way, which traditionally seems to have been the most important and prominent way to reach the end of human life toward which religions of every type, ancient and modern, claim to lead. This is the way of action: *karmamārga*, the ritual performance of certain acts by means of which the desired fulfillment is attained. Religion here is first of all *orthopraxis*.

Although the two other ways have also reinterpreted the sacrifice in their own perspectives, here, in this third way we have, strictly speaking, the place of the sacrifice, or at least, of the primordial meaning of it. And here, significantly enough, the most ancient religious traditions of mankind meet the most modern trends of secular Man. Here, work redeems Man. Admittedly, the work is sacred, not merely profane activity; but nothing prevents it from being utterly secular work. Let me note here that the sacred is opposed to the profane, not to the secular.[74] We are now ready to pick up the thread of our discourse.

III - THE MODERN SECULAR SACRIFICE

When comparing our contemporary situation with problems of the past, we have to take into account the different horizons of intelligibility; in other words, we have to consider the different myths which underlie the cultures we are discussing. Now, the myth of an epoch or a culture is the spontaneous or unproblematic horizon over against which facts and events are situated so that Man may understand them. The myth forms the ultimate ground of intelligibility for a given culture or subculture; it is that horizon in which we believe, without believing that we believe in it, so much do we take it for granted. For instance, history is a criterion for truth; a fact is taken to be real if it can be proved to be a historical fact. This *in fact* is a rather modern western myth probably of semitic origins, not at all universal in the human experience. This is why we can easily detect the myth of others without being aware that we, too, have our own myths, just as we instinctively detect the accent other people have in speaking a particular language, but are oblivious to our own accent - unless, of course, others draw our attention to it.

To speak of sacrifice as the proper ritual for overcoming time may be easily accepted by the Historian of Religions when dealing with other people and cultures. But the question becomes much more delicate when applied to our present-day situation. And I suggest that the function and scope of the Science of Religion is not just to investigate some odd culture, but to investigate the religious dimension of Man - ourselves and our culture not excluded. This understanding of religious studies, as

the study of the ultimate self-understanding of Man, shows that the underlying insights of the traditional doctrines of sacrifice are still alive and valid in contemporary secular society. Further, this perspective may help us not only to understand our modern predicament, but also to reform and transform it by placing it in a wider and deeper context. This is all the more relevant since the two traditional ways, knowledge and love, seem today to be on the wane after centuries of predominance in the religious world: *homo sapiens et homo amans* are increasingly giving way to *homo faber et homo agens*. It seems to be a modern axiom that not by knowing or loving are we going to save and justify our lives, but by making and acting.

1. The sacredness of the secular work

What has been said so far should not be understood as either saying that the ways of contemplation or wisdom (*jñānāmārga*) and that those of love and devotion (*bhaktimārga*) are obsolete or that the traditional *kārmamārga* is what modern secularized Man is performing. Rather, I am detecting a connecting link with, and a growing point from, tradition.

If "the clock, not the steam-engine, is the key-machine of the modern industrial age",[75] it is fitting that a new experience of time should dawn in the post-industrial age.[76] The power of the methods of thought is not that they just provide us a way (ὁδός) to the real, but that they shape and assist in the creation of the very reality they claim to help us discover.[77]

To be sure, modern secularized Man is not performing the vedic or the christian sacrifice; the understanding of action has also evolved. But in a certain sense he is performing sacrificial actions: the efforts of the good citizen to increase the welfare of society, the concern of the genuine intellectual for the well-being of his fellow beings, the sincere ideal of the scientist in working for the progress of the world, the pains the honest national or international official takes for the elimination of poverty, disease, hunger, injustice and the like, could be adduced as

examples. We should not minimize the *religious* *pathos* behind such attitudes, even if entirely secular. The work-ethic mentality is not the privilege of anglo-saxon protestantism only. Other christians as well as muslims, communists, socialists and humanists share this belief: Man justifies his existence by his work. Not to this day has the principle enunciated by St Paul: "he who does not work should not eat"[78] been better followed. Perhaps this is a latent feature in all cultures of abrahamic origin. Work is the way in which Man believes he repays his debt to society and to the past and by which he justifies his existence, for he believes he is collaborating in building a more just and human society.[79] Work is sacred and rightly demands a kind of sacred consecration to it. The full-fledged human being is a worker.[80] Nor is this all.[81] Work seems to be the heir to the traditional sacrifice and in fact most of the laws and regulations of modern civilization spell out the rituals for duly performing this grandoise sacrifice of the *working* community. Work, we hear in different tones, is no longer the task of slaves but of free citizens; work ennobles, "work is worship".[82] The work of everyone allows a nation to be prosperous and rich, and citizens to reach a well-deserved "paradise of abundance", freedom and happiness. *Karmamārga* is the way to salvation: educators, doctors, lawyers, engineers and politicians are the dignified and well-honored priests of this modern religiousness. Modern banks are better kept and adorned with tapestry, pictures, flowers and places to sit than churches; the sacred hours are not the time of leisure or prayer, but the working hours.[83]

Here, with as much accuracy as in the most orthodox traditional religions, time is regulated and considered sacred. Working hours are reckoned as the most precious hours of daily activity, to the point of being meticulously calcuated to the exact minute. Other hours are less important. An employee who works overtime is naturally paid more, precisely because he sacrifices more time. To 'take up your time' or to ask for 'some of your time', without compensation, amounts to exploitation or plain robbery....By means of work the ordinary citizen becomes contemporary with the Founder's dream, myth or idea that inspires him to work.[84] He also reaches the ideal of the end of times, when the hardships endemic to work will be taken away and life will be filled with justice and joy.[85] If we produce enough 'time-saving' gadgets

for everyone, they will redeem us from the effort of pain connected with work...The sacrifice, the sacrificer and the sacrificed, like in the Vedas and the New Testament, ultimately coalesce.

In sum, modern work claims to liberate Man from the strictures of time and to allow him both to rescue his life from the chains of a time-bound existence and to justify his life by allowing him to collaborate in the 'salvation' of the World. All the traditional motives of sacrifice have been preserved in the process of being transplanted into another horizon. We have here a typical example of transmythicization.

2. The secular sacrifice

It is quite clear by now, in the last quarter of the twentieth century, especially in the most technically developed countries, that the foregoing description sounds like a caricature. Modern work tends to make people slaves, exploitation has not decreased, free time is also downgraded into mere recovery for better future production; the very success of the fittest, of the winners in 'free' competition, turns into misery for the others; technology devours its own fathers, etc.

I am not arguing for or against anything at the moment, but trying to understand this central aspect of modernity by describing the fundamental thrust of the secular attitude and detecting its deep roots in tradition itself.

Attempting another sketchy overview of human civilization in the perspective of this paper I would suggest the following:

The ancient ages were characterized by the *theological belief* that Man's life is part of a divine adventure. The rituals express the struggle of Men and Gods all together. The first hellenistic and the vedic periods could be adduced as examples.

and priests of old institutions. *Jñanāmārga* and *bhaktimārga,* important and necessary as they are, are neither self-sufficient, nor *de facto* possible without the balancing complement of *karmamārga,* the way of action.

I am not simply justifying modernity or being callously uncritical of the sorry condition of modern society, but neither do I want merely to condemn modernity or restore tradition. Rather I am undertaking the task of discovering society's radical continuity with tradition, without falling into a *laudatoris temporis acti* attitude which would not help, apart from not being true. If we discover the common roots, we may find a possibility of regeneration without alienation.

The many attempts of secular Man to master time, for instance, show the same deep concern as the more traditional forms of religiousness. One typical example in technological society is the sacred character that speed has acquired. This is especially true of acceleration. By increasing speed, one increases power, efficiency, pleasure, etc., and so the ideal becomes to increase velocity itself: acceleration.[89] But it has not taken many centuries to discover the precarious nature of such an outlet. Speed does not touch the core of Man, however much it increases the range of his possibilities: we may read faster, have more information available, accomplish more operations which would otherwise be lengthy and complicated, be confronted with many more options, etc. But we do not necessarily enhance the quality of life or Man's real power, for either time seems unlimited (and always demands more, so that we cannot stop to enjoy what we have attained) or we ourselves seem limited (and so are unable to enjoy the possibilities open to us) - even if we assume the efficient and equitable functioning of such a technological world.

The redemption of time, which secular Man does not understand as escaping from time but as its purification, cannot be brought about by making it go faster, nor by trying to slow it down and eventually stop it altogether. Neither accelerating time, on the one hand, as the pure secularist would recommend, nor stopping it, on the other hand, as the old shaman would command, would help us to 'win our lives'. The two extremes, that of building a better technology, or 'humanizing it, as well

as that of destroying it or dispensing with it altogether, are, in my opinion, not only *practically* ineffective; they are also *theoretically* wrong. Mere patchwork and efforts at reform of a mortally wounded system will not do, but to stop the entire machinery of the world would also prove utopian, even for a selected elite. Neither attitude would bring a balanced and proper solution, even if it were possible.

3. The sacrifice of the secular

If the most salient feature of our modern culture is its secular mentality and the core of secularity is recognizing the central and inescapable character of time, modernity's basic issue will be to discover how Man can become the master of time. Now, agreeing with the secular mentality that time is constitutive of Being and thus coextensive with it, so that there is no being - and no Being - untouched by time, one should quickly add that there is not just one and only property of Being. This is the crux of the matter. Time may be a transcendental in the sense of the aristotelian-scholastic philosophy, i.e. a property inherent in any being *qua* being, but it is not the only one. Of course, the only property incompatible with time as a transcendental would be no-time, but not the supra- or transtemporal. Time may be coextensive with Being, but Being is not exhausted by it. In other terms, is there any way for modern Man to discover something built in the very heart of time, inseparable from time and yet not to be confused with it? This is what I called *tempiternity*, which is neither an everlasting time, nor a 'post-temporal' eternity but the very soul of time as it were. Time without it is a corpse, but the soul without its body is a mere abstraction.

Now, sacrifice is that set of actions which reach the tempiternal core of reality and thus gives us, first an awareness of the transcendental value of our authentic acts, and second, the possibility of acting with the full power inherent to those acts.

or socially painful conditions. The many forms of these sacrificial acts by means of which the human being acquires sovereignty over, that is freedom from the conditionings of life, are the rituals of the *sacred sacrifice of secular Man.*

Combining the three points just mentioned, suffice it to say that secular sacrifice is not a new kind of ritualistic act, but a spirit or a degree of consciousness present in Man's liturgical actions. First of all, it will manifest itself in viewing the traditional religions in a new light and enabling us to discover their underlying intention. Second, it will find new means of expression, which obviously cannot be pre-planned, much less postulated. Third, it will situate us in the face of the unexpected and put our lives at stake - perhaps for death, hopefully for resurrection.

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Special Abbreviations

AB .... Aitareya Brāhmana

AV .... Atharva Veda or Authorised Version (of the Bible)

/B .... Bhāṣya (Commentary)

BG .... Bhagavad Gītā

Bj .... Bible of Jerusalem

BS .... Brahma Sūtra

BU .... Bṛhadāraṇyaka Upaniṣad

CU .... Chāndogya Upaniṣad

JB .... Jaiminīya Brāhmaṇa

KathU .... Kaṭha Upaniṣad

MaitU .... Maitrī Upaniṣad

MandU .... Māṇḍūkya Upaniṣad

MundU .... Muṇḍaka Upaniṣad

NEB .... New English Bible

OT .... Old Testament

RSV .... Revised Standard Version (of the Bible)

RV .... Ṛg Veda or Revised Version (of the Bible)

SB .... Śatapatha Brāhmaṇa

TB .... Taitirīya Brāhmaṇa

TMB .... Taṇḍya Mahā Brāhmaṇa

YS .... Yoga Sūtra

NOTES AND REFERENCES

1. I shall write 'Man' throughout this article to express not the male, but the androgynous human being, and use the morphologically masculine pronoun with an ambivalent meaning.

2. Having dedicated much of my academic activity to elucidating how we can understand other people's beliefs, I shall skip here altogether a thematic reflection on the formidable problem of the proper method for cross-cultural studies.

3. AV XIX, 53, 3. Cf., my commentary in "Time and History in the Tradition of India: Kāla and Karma" translated in *Cultures and Time*, Paris (Payot-UNESCO), 1976, pp. 63-68 from the original French "Temps et histoire dans la tradition de l'Inde", *Les cultures et le temps*, Paris (Payot-UNESCO), 1975, p. 75 sq.

4. Cf. e.g. Luc XII, 20, sq.

5. Rev X, 6 (RV translation).

6. Even if modern exegesis is right, the shift of emphasis and even meaning of the quote just given is typical. The AV also says, "There should be time no longer", and this reflects the classical mentality of the "quia tempus non erit amplius" of the Vulgate translating literally the ambivalence of the original ότι χρόμος ουκέτι έσται as cosmological time or anthropoligical (waiting) time. Modern versions, obviously translate χρόμος by delay (RSV), "There shall be no more delay.", "Plus de delai!" (BJ).

7. Cf D. Thomas saying, "aeternitas non est aliud quam ipse Deus" (eternity is nothing but God himself). *Sum. Theol.*, I, q. 10, a. 2, ad 3.

8. Cf. RV III, 2, 8

9. Cf. RV I, 59, 2

10. Cf. RV X, 45, 5

11. Cf. RV III, 2, 9

12. Cf. RV III, 5, 10

13. Cf. RV I, 67, 5

14. Cf. RV I, 69, 1

15. It may be noted in passing that I have not worded these polarities to be mutually exclusive, as being-nonbeing, one-nonone, identical-non-identical, etc.

16. Cf. Spinoza's "sentimus experimusque nos aeternos esse." *Ethic.* Schol. 23, V; or the famous Augustinian dictum: "inquietum est cor nostrum donec requiescat in te" *Conf.* I, 1, n. 1.

17. Cf. St. Augustine's "ut ergo tu sis, transcende tempus." *In Ioan.*, tract. 38, n. 10, or YS I, 26 saying that for *Iśvara*, a model for the perfect Man, "there is no limitation by time."

18. Interestingly enough, in sanskrit we have practically no positive word for eternity, i.e., only negations of temporality (except perhaps *nitya* of disputed etymology: *ni-tya* = in-ness, or *ni-ja* = innate). Cf. the common expressions: *nitya-anitya* (constant, eternal, and inconstant, temporal), *kalākala*, temporal-nontemporal, and the adverb *nityakālam*, always, at all times or rather constantly temporal. In Hebrew we have *ōlam* and *neṣah* for 'eternity'. The first comes from the root '*-l-m*, to hide (hidden time?). The root of the

second means to shine, brightness. There is also a third word, *'ad* (related to *'et*, time). Greek, on the other hand, seems to have only the temporal and secular word αἰών for 'eternity', the meaning of which is saeculum, world. Cf. J. R. Wilch, *Time and Event*, Leiden (Brill), 1969, which sums up the state of the question in the semitic tradition, including J. Bau, *Biblical Words for Time*, London (SCM), 1962

19. From Cicero's history as "magistra vitae" to A. Toynbee's prophetical function of history there is a continuous line in western tradition. Cf. for the latter his posthumous book, *Mankind and Mother Earth*, New York (Oxford University Press), 1976

20. A. Camus could be adduced here as a modern example.

21. Cf. E. M. Cioran, *The Trouble with Being Born*, New York (Viking), 1976, and E. Jabès, *The Book of Questions*, Middletown, Conn. (Wesleyan University Press), 1976, to cite just two French authors recently translated into English - and J. P. Sartre, of course.

22. The function of philosophies and theologies of all kinds has been not only that of unfolding the consequences of an initial and creative intuition, but also that of adapting the theoretical system to the factual development of the tradition. Not only scriptures or the foundational charisma is a *locus theologicus*, but also the life of the people.

23. Cf. BG IV, 33; IX, 22, etc.

24. Cf. BS III, 4; III, 6, etc.

25. Cf. Rom XII, 1.

26. Cf. I Petr II, 5.

27. Cf. Sáṅkara BS/B I, 1, 11; I, 4, 14; BU/B III, 3, 1: III, 9, 20; and the Philokalia, to quote only two important sources.

28. Cf. e.g. V. Warnach, "Vom Wesen des kultischen Opfers", in B. Neunheuser, *Opfer Christi und Opfer der Kirche*, Düsseldorf (Patmos) 1960, pp. 29-74

29. "Emic" and "etic" considerations could be placed here, if so desired. The terms are taken from phon*emics* which deals with the sounds of one particular language, and phon*etics* which attempts to find rules for all languages.

30. Cf. R. Panikkar, *The Vedic Experience*, Berkeley and Los Angeles (University of California Press) 1977, for further texts and the context of this succinct paragraph.

31. Cf. SB II, 2, 2, 8-14, and also IV, 6, 9, 12 as well as JB I, 2. The participation in the *aśvamedha* sacrifice results in a victory over death in all the worlds (SB XIII, 3, 5, 1; TB III, 9, 15, 1).

32. Cf. SB VIII, 6, 1, 10, etc.

33. Cf. SB XI, 1, 8, 5; CU II, 24, 12 (*svārājyāya...*) etc.

34. Cf. JB II, 140 (*śrī*): TMB XXII, 4, 2 (*ṛddhi*); TB III, 1, 4, 10 (sacrificer become lucky, *bhagī*).

35. Cf. SB. II, 3, 1, 6 with reference to the *agnihotra* sacrifice. Cf. also SB XII, 8, 1, 16; XII, 3, 1, 1.

36. Cf. SB XIII, 6, 1, 1 with reference to the *puruṣamedha*. Cf. also SB IV, 5, 3, 2.

37. "Each day the sacrifice is offered, each day the sacrifice is accomplished, each day it links afresh the offerer to heavenly existence, each day the sacrificer penetrates the heavens." SB IX, 4, 4, 15.

38. Cf. RV I, 164, 35.

39. Cf. SB III, 6, 2, 26.

40. Cf. TB III, 9, 2, 1; *agnihotra* is a ship leading to heaven: SB II, 3, 3, 15, etc. Or TB III, 1, 5, 11 for the sacrifice as offering the right foundation, the firm ground *pratiṣṭhā*.

41. Cf. "When one worships time as if it were *brahmā*, it escapes", MaitU VI, 14, although we cannot enter into its proper context here.

42. Cf. SB II, 2, 2, 14 (*sarvam* āyvus).

43. TMB XXII, 12, 2

44. This is one of the main messages of the Upaniṣads.

45. Cf. BG III, 10-16; 20, etc.

46. Cf. RV X, 90; AB VII, 8, 2; SB I, 8, 1, 1-10, etc.

47. This is also the function of *dharma*, and *dharma* is intimately connected with sacrifice.

48. Cf. R. Panikkar, "La misa como 'consecratio temporis': la tempiternidad", in *Sanctum Sacrificium, Proceedings of the V Congreso Eucarístico de Zaragoza*, Zaragoza, 1960, pp. 75-93 for a more detailed discussion of the christian background.

49. Cf. Heb VII, 26 sq.; IX, 25 sq; etc.

50. Heb XI, 4 and also I Jo III, 12; Jud 11. For the OT cf. Gen IV, 1-25.

51. Cf. Heb V, 6-10; VII, 1 sq. For the OT cf. Gen XIV, 18 and Ps. CX, 4.

52. Cf. Heb VI, 13, sq., etc. For the OT cf. Gen XXII, 1-18.

53. Cf. B. Neunheuser (ed.), *op. cit.* especially V. Warnach *art. cit.*

54. Cf. Heb IV, 14, sq.

55. Cf. the traditional Roman Catholic doctrine of the sacrifice of the Man, for instance, as proclaimed in the Council of Trento in 1662. Cf. Denzinger-Schönmetzer (ed.) *Enchiridion symbolorum definitionum et declarationum de rebus fidei et moribus* (editio XXXIV), Barcinone, (Herder), 1967, Nrs. 1738-1759

56. To give the Denzinger references will spare us further elaboration. Cf. Denz. 1740.

57. Cf. Denz. 1753

58. Cf. Denz. 1743

59. Cf. I Cor XV, 28.

60. Cf. O. Casel, *Das christliche Opfermysterium*, Graz (Styria), 1968, as a single example of a christian theology of sacrifice. Who Christ is, remains here an open question.

61. Cf. another text of the already quoted Council of Trento: "Is igitur Deus et Dominus noster, etsi semel seipsum in ara crucis, morte intercedente, Deo Patri oblaturus erat, ut aeternum illis [illic] redemptionem operaretur!... ut dilectae sponsae suae Ecclesiae visibile (sicut hominum natura exigit)

relinqueret sacrificium, quo cruentum illud semel in cruce peragendum repraesentaretur eiusque memoria in finem usque saeculi permaneret, atque illius salutaris virtus in remissionem eorum, quae a nobis quotidie committuntur, peccatorum applicaretur:..." Denz 1740.

62. By *cosmotheandric* or 'theanthropocosmic' intuition I understand that vision of reality which sees the divine, the human, and the cosmic as the three ultimate factors present in whatever there is. Cf. my contribution to the 2nd International Symposium on Belief, "La visione cosmoteandrica: il senso religioso emergente del terzo millennio", *Vecchi e nuovi dei*, ed. by R. Caporale, Torino, (Valentino), 1976, pp. 521-544.

63. This summary, of course, does not do justice to the entire theory of the sacrifice, which according to the same christian tradition is essential to any religion. "Remotisque sacrificiis nulla nec esse nec cogitari religio potest." Denz. S3339.

64. Cf. the notion of 'illo tempore', especially as discussed by M. Eliade in his *The sacred and the Profane*, New York (Harcourt, Brace & World, Inc.) 1957, 1959; *Cosmos and History*, New York (Harper) 1959; *From Primitive to Zen*, New York (Harper) 1967; etc. As for the term and notion of *tempiternity* Cf. R. Panikkar note 48 and "El presente tempiterno" in *Teología y mundo contemporáneo*, ed. A. Vargas-Machuca, Madrid (Cristiandad), 1975, pp. 133-175.

65. R. Panikkar, *Le mystère du culte*, p. 47, Cf. also Chapter III, "Le culte et le temps", (pp. 43-52).

66. Cf. the conception of the *Gītā:* if all actions are performed as sacrifice (cf. III, 9; IV, 23), time becomes fulfilled and thus redeemed; it is no longer alienation, but fullness.

67. *Reverend* is one who can perform *the* sacrifice in the christian tradition, like *pūjyā*, with the same meaning as title of address, is the priviledge of the sacrificing castes in the hindu one.

68. Cf. Luc XVII, 21; Act XVII, 27-28 and BU III, 7; KathU V, 9; VI, 17; MandU II, 1, 9; MandU 6; MaitU VI, 1; etc.

69. Cf. Arist. Phys. IV, 11 (219 b 1).

70. "Los fenómenos espirituales o mentales no duran; los anímicos ocupan tiempo. El entender que 2 + 2 = 4 se realiza en un instante", as José Ortega y Gasset wrote in 1924. See: *Obras Completas*, Madrid (Revista de Occidente) 1966, vol. II, p. 461.

71. Cf. R. Panikkar, chapter "La unidad fisicomatemática de tiempo", *Ontonomía de la Ciencia*, Madrid (Gredos) 1961, pp. 309-551, for the distinction between physical and physico-mathematical time.

72. Is it also an irony that he was probably the first rhetorician being paid by the state?

73. Cf. the many buddhist parables and the "terrena despicere" and "i bi fixa sunt corda ubi vera sunt gaudia" of the christian latin liturgy.

74. Cf. R. Panikkar, *Worship and Secular Man*, London (Darton, Longman and Todd, Ltd.) and New York (Orbis Books) 1973, pp. 9-13, and chapter 2: "Secularization", (pp. 28-55).

75. L. Mumford, *Technics and Civilization*, New York (Harcourt, Brace & World, Inc.) 1934 - Harbinger Books edition 1963, p. 14.

76. "The bells of the clock tower almost defined urban existence. Time-keeping passed into time-serving and time-accounting and time-rationing. As this took place, Eternity ceased gradually to serve as the measure and focus of human action". *ibid.*

77. "The application of quantitative method of thought to the study of nature had its first manifestation in the regular measurement of time;"... *ibid.*, p. 12

78. Cf. II Thes III, 10.

79. Cf. the many 'theologies of work', so popular some decades ago to counteract the marxist pathos: 'To work is to collaborate in the creative act of God'. Cf. the pioneer article by M. D. Chenu, "Pour une théologie du travail", *Esprit* (Jan. 1952). *Theology of Work*, the English translation of his French book, is of 1965.

80. Cf. The entire liturgy, and the theological justification of it, of the first of May as the feast of St Joseph the Laborer in the Roman Catholic church instituted by Pius XII in 1955. Cf. also the idea and ideal of the *consecratio mundi* since the so-called Catholic Action and secular spiritualities in the same church.

81. Cf. the first article of the Constitution of the Spanish Republic of 1931: España es una República democrática de *trabajadores* de toda clase" (my underlying). Not citizen but worker is the title of the 'people'.

82. A common slogan in modern India, as well as "cleanliness is (next to) godliness."

83. Shops and offices used to open at 10 o'clock in the morning in a tropical country like India, because the best hours of the morning were supposed to be consecrated to prayer, study and leisure. Modern India is slowly "catching up"

and modern businesses make an effort at being more "rational" by beginning the "work" at "better" times.

84. The communist ideology is a typical instance, and many of the Bicentennial speeches of 1976 in the USA show another example.

85. Cf. K. Marx and F. Engels *The Communist Manifesto* in any of its many editions and translations of the London (Burghard) edition of 1848.

86. It is significant that the two indo-european roots related to time, **dī* (to part, cut, distribute) and **ten* (to extend, stretch, dilate, expand) both are related to words signifying sacrifice. Cf. J. Pokorny, *Indogermanisches etymologiches Wörterbuch*, Bern, München (Francke) 1959, *sub vocibus*.

87. Cf. Arist., *Metaph*. IV, 2 (297) (1003 a33).

88. Cf. as a pertinent example *The Voices of Time*, ed., J. T. Fraser, New York (Braziller) 1966; also J. T. Fraser *Of Time, Passion and Knowledge*, New York (Braziller) 1975.

89. R. Panikkar "Technique et temps: la technochronie" in *Technica e casistics*, ed. E. Castelli, Padua (CEDAM) 1964, pp. 195-229.

90. Would I be allowed to offer this explanation for the startling phrase that the kingdom of God suffers violence? (Matth. XI, 1, 12) It is not the automatic happy ending of a rosy discipleship, but the new life after an act of total renunciation.

91. For an elaborated discussion on the metaphysical foundation for an ontonomic order, Cf. R. Panikkar "Le concept d'ontonomie", *Actes du XIè Congrès International de Philosophie Bruxelles 20-26 August 1953*, Louvain (Nauwelaerts) 1953, Vol. III, pp. 182-188.

DISCUSSION AND COMMENTS
by Lewis Rowell

Professor Panikkar is uniquely qualified to present a comparative study of these two widely differing religious traditions and, at the same time, suggest a possible synthesis that may hold wider relevance for modern man. The present paper contains a wealth of insights and informative references that invites one to restate the main themes. Panikkar has described, in pleasantly unorthodox terms, a very special Now - the eternal, "privileged moment" that allows man to put himself in tune with the beginning and end of time by the performance of a sacrificial action. Man is thus enabled to vanquish time, *i.e.* to transcend his present limitations, his thresholds of consciousness

The dimensions of ritual time are set forth in a provocative manner: it is described as vertical or circular, a pattern of time awareness that is qualitative, ambivalent, and polydirectional. Space limitations preclude even a rudimentary analysis of this challenging statement, other than to point out that Panikkar's ritual time, by means of this simultaneous alignment of past and future, comes close to what many of us understand as the time of myth. And in his delightful section on the secular sacrifices of modern man (III.1) the author describes with humor how we continue to fulfill mythical patterns in bank, factory, and supermarket.

It is worth noting that Panikkar does not find the sacred and the secular mutually exclusive - an assertion that more orthodox theologians might find hard to swallow; his sacrifice is a sacred action by secular, not "profane," man. He rejects both "turning on" and "tuning out" in favor of the way of sacrifice, the *karmamārga*. Paraphrasing his conclusion in Pauline terms: for those who seek to transcend their own limitations, there abideth these three - knowing, loving, and doing; but the greatest of these is *doing*.

One can question (with due allowance for a personal use of terminology) one or two other assertions of this paper: (1) that a real synthesis of different cultural traditions is possible for those of us who have been conditioned by a homogeneous society, and (2) that the knowledge of one's limitations in time is invariably an "irritating imperfection" and an insult to man's self-identity. Might such knowledge even be a comfort at times?

Readers will do well to relate Panikkar's thesis to Fraser's theory of *Time as Conflict* (as set forth in the latter's work by that title. Both recognize the same existential tension inherent in our perception of time as being and becoming. Perhaps the sacrificial action that reconciles these contradictions marks an ascent to a new integrative level of awareness. And further, the "new experience of time" that Panikkar refers to in section III.1 can be identified with Fraser's concept of *sociotemporality* (*cf.* his paper on "The Individual and Society" elsewhere in this volume).

The author's extremely broad definition of sacrifice - "overcoming transtemporal limitation by participating in an act which in itself has transtemporal significance" - invites one to extend the definition to such activities as building a cathedral (as Panikkar has suggested), writing a book, conceiving a child, or (as a questionner suggested) even the act of play. By at least one of these standards the activities of this Society form such a collective "sacrifice " I would hope that, for us and other seekers, the *jñānamārga* is also the *karmamārga*.

Time and Eternity in Indian Thought

Mircea Eliade

THE FUNCTION OF THE MYTHS

Indian myths are *myths* before they are *Indian*—that is to say, they belong to a particular category of archaic man's spiritual creations; consequently, they can be compared to any other groups of traditional myths. Before presenting the Indian mythology of time, we might say a word about the close connection between myth, as an original form of culture, and time. For aside from its specific functions in archaic society, which need not concern us here, myth is significant for the light it throws on the structure of time. As most modern thinkers agree, myth relates events which took place *in principio*, at the beginnings, in a primordial, atemporal moment, a *sacred time*. This mythical or sacred time is qualitatively different from profane time, from the continuous and irreversible time of our everyday, desacralized existence. In narrating a myth, we reactualize, as it were, the sacred time in which occurred the events of which we are speaking. (And that is why, in traditional societies, myths cannot be related at any time or in any manner one chooses: one can recount them only during holy seasons, in the woods at night, or around the fire before or after the rituals, etc.) In a word, myth is supposed to take place in an intemporal time, if we may be pardoned the term, in a moment without duration, as certain mystics and philosophers conceive of eternity.

This observation is important, for it follows that the narration of myths has profound consequences both for him who narrates and for them who listen. By the simple fact of a myth's narration, profane time is—symbolically at least—abolished: narrator and audience are projected into a sacred, mythical time. We have elsewhere attempted to show that the abolition of profane time by the imitation of exemplary models and the reactualization of mythical events constitutes a specific mark of all traditional societies,

and that this in itself suffices to distinguish the archaic world from our modern societies.[1] In the traditional societies men endeavored consciously and voluntarily to abolish time at periodic intervals, to efface the past and to regenerate time by a series of rituals which in a sense reactualize the cosmogony. Here we need not go into details which would take us too far from our subject. It may suffice to recall that a myth tears man away from his own time, from his individual, chronological, "historical" time—and projects him, symbolically at least, into the Great Time, into a paradoxical moment that cannot be measured because it has no duration. Which amounts to saying that myth implies a breach in time and the surrounding world; it opens up a passage to the sacred Great Time.

Merely by listening to a myth, man forgets his profane condition, his "historical situation," as it is nowadays called. A man need not necessarily belong to a historical civilization to justify us in saying that he is in a "historical situation." The Australian who feeds on insects and roots is also in a "historical situation"—that is to say, in a situation that is delimited, expressed in a certain ideology, and sustained by a certain type of social and economic organization; specifically, the existence of the Australian very probably represents a variant of the historical situation of paleolithic man. For "historical situation" does not necessarily imply "history" in the major sense of the term: it implies only the human condition as such—that is to say, a condition governed by a certain set of attitudes. And in listening to a myth an Australian, as well as an individual belonging to a far more highly developed civilization—a Chinese, for example, or a Hindu or a European peasant—forgets, as it were, his particular situation and is projected into another world, into a universe which is no longer his poor little every-day universe.

It must be recalled that for all these individuals, for the Australian as well as the Chinese, the Hindu, and the European peasant, myths are *true*, because they are *sacred*—they speak of sacred beings and events. Consequently, in narrating or listening to a myth, one resumes contact with the sacred and with reality and in so doing transcends the profane condition, the historical situation. In other words, one transcends the temporal and the obtuse self-sufficiency which is the lot of all men because all men are "ignorant"—that is, because they identify the real with their own particular

1 Cf. Eliade, *The Myth of the Eternal Return*, tr. W. R. Trask (New York and London, 1954), pp. 51ff.

situation. For ignorance is primarily that false identification of the real with what each one among us seems to be or seems to possess. A politician believes that the sole and true reality is political power, a millionaire is convinced that wealth alone is real, a scholar has the same belief with regard to his studies, his books, his laboratories, and so on. The same tendency is also found among the less civilized, among primitive peoples and savages, but with this difference: here myths are still alive to prevent them from identifying themselves fully and continuously with nonreality. The periodic recitation of myths breaks through the walls erected by the illusions of profane existence. Myth continuously reactualizes the Great Time and in so doing transfers its audience to a superhuman and suprahistorical plane, which, among other things, enables it to approach a reality that is inaccessible on the plane of individual, profane existence.

INDIAN MYTHS OF TIME

This capital function of "breaking through" individual, historical time and of actualizing the mythical Great Time is strikingly illustrated by certain Indian myths. We shall give a famous example, drawn from the *Brahmavaivarta Purāṇa*, which the late Heinrich Zimmer summed up and commented upon in his book *Myths and Symbols in Indian Art and Civilization*.[2] This text has the particular advantage of starting right in with Great Time as an instrument of knowledge and hence of deliverance from the bonds of Māyā.

After his victory over the dragon Vṛtra, Indra decides to rebuild and embellish the residence of the gods. Viśvakarman, the divine architect, labors for a year and succeeds in constructing a magnificent palace. But Indra is not satisfied: he wishes to make it still larger and more splendid, without its equal in the world. Exhausted with his effort, Viśvakarman complains to Brahmā, the Creator God. Brahmā promises to help him and intervenes with Viṣṇu, the Supreme Being, of whom Brahmā himself is only a simple instrument. Viṣṇu undertakes to bring Indra back to his senses.

One fine day Indra in his palace receives the visit of a ragged boy. It is Viṣṇu himself, who has assumed this aspect to humiliate the King of the Gods. Without immediately revealing his identity, he calls Indra "my child,"

2 Ed. Joseph Campbell (New York and London, 1946), pp. 3ff.

and speaks to him of the innumerable Indras who have inhabited innumerable universes up to this time.

> The life and kingship of an Indra endure seventy-one eons [a cycle, a *mahāyuga*, consists of 12,000 divine years or 4,320,000 years!], and when twenty-eight Indras have expired, one day and night of Brahmā have elapsed. But the existence of one Brahmā, measured in such Brahmā days and nights, is only one hundred and eight years. Brahmā follows Brahmā; one sinks, the next arises; the endless series cannot be told. There is no end to the number of those Brahmās—to say nothing of Indras.
>
> But the universes side by side at any given moment, each harboring a Brahmā and an Indra: who will estimate the number of these? Beyond the farthest vision, crowding outer space, the universes come and go, an innumerable host. Like delicate boats they float on the fathomless, pure waters that form the body of Viṣṇu. Out of every hair-pore of that body a universe bubbles and breaks. Will you presume to count them? Will you number the gods in all those worlds—the worlds present and the worlds past?

As the boy speaks, a procession of ants has made its appearance in the great hall of the palace. Drawn up in a column four yards wide, they parade across the floor. The boy perceives them, pauses, and then, seized with amazement, breaks out in a sudden laugh. "Why do you laugh?" Indra asks him.

And the boy replies: "I saw the ants, O Indra, filing in long parade. Each was once an Indra. Like you, each by virtue of pious deeds once ascended to the rank of a king of gods. But now, through many rebirths, each has become again an ant. This army is an army of former Indras . . . "

This revelation brings home to Indra the vanity of his pride and ambitions. He recalls the admirable architect Viśvakarman, rewards him royally, and abandons forever his project of enlarging the palace of the gods.

The intention of this myth is transparent. The dizzy evocation of the innumerable universes rising and vanishing from the body of Viṣṇu suffices to awaken Indra; it compels him to transcend the limited and strictly contingent horizon of his situation as King of the Gods, we might even be tempted to add, of his *historical* situation, for Indra happens to be the Great Warrior Chieftain of the gods in a certain historical moment, at a certain stage of the grandiose cosmic drama. And from Viṣṇu's very mouth Indra hears a *true story:* the true story of the eternal creation and destruction of

the worlds, beside which his own history, his own innumerable heroic adventures culminating in his victory over Vṛtra, seem indeed to be "false," that is, events without transcendent significance. The *true story* reveals to him Great Time, mythical time, which is the true source of all cosmic beings and events. It is because he is enabled to transcend his historically conditioned situation and to rend the illusory veil created by profane time—that is to say, by his own "history"—that Indra is cured of his pride and ignorance; in Christian terms, he is "saved." And this redeeming function of myth operates not only for Indra but also for every human being who hears the story of his adventure. To transcend profane time, to recover the mythical Great Time, is equivalent to a revelation of ultimate reality. And this is a strictly metaphysical reality, accessible only through myths and symbols.

This myth has a sequel, to which we shall return. For the moment it need only be remarked that the conception of a cyclical, infinite Time, presented so strikingly by Viṣṇu, is the pan-Indian conception of cosmic cycles. The belief in the periodic creation and destruction of the universe is already as early as the *Atharva-Veda* (X, 8, 39–40). And as a matter of fact it belongs to the *Weltanschauung* of all archaic societies.

THE DOCTRINE OF THE YUGAS

India developed a doctrine of cosmic cycles which expands the periodic creations and destructions of the universe into staggering proportions. The smallest unit of measurement is the *yuga*, or "age." Each yuga is preceded by a "dawn" and followed by a "dusk," which constitute the transition between them. A complete cycle, or *mahāyuga*, consists of four "ages" of unequal length, the longest occurring at the beginning of the cycle and the shortest at its end. The names of these yugas are borrowed from the names for the "throws" in the game of dice. Kṛta Yuga (from the verb *kṛ*, "to make, accomplish") means the "perfect age," from four, the winning throw in the game of dice. For in the Indian tradition, the number four symbolizes totality, plenitude, and perfection. The Kṛta Yuga is also called Satya Yuga—that is, the "real," true, authentic age. From every point of view, it is the golden age, the beatific epoch of justice, happiness, prosperity. During the Kṛta Yuga the moral order of the universe, the Dharma, is respected in its entirety. Moreover, it is observed by all men spontaneously and without constraint, for during the Kṛta Yuga, the Dharma is in a sense identified with human existence. The perfect man of the Kṛta Yuga incar-

nates the cosmic and consequently the moral norm. His existence is exemplary, archetypal. In other, non-Indian traditions, this golden age is equivalent to the primordial, paradisiacal epoch.

The following age, the Tretā Yuga, the triad, so named from the three-pointed die, marks a regression. Now men observe only three-quarters of the Dharma. Labor, suffering, and death are now the human lot. Duty is no longer spontaneous, but must be learned. The modes of life pertaining to the four castes begin to be vitiated. With the Dvāpara Yuga (the "age" characterized by "two") only half of the Dharma subsists on earth. The vices and evil increase, human life becomes still shorter. In the Kali Yuga, the "evil age," only one quarter of the Dharma remains. The term *kali* signifies the die marked by a single point, consequently the losing throw (personified moreover by an evil genius); *kali* also signifies dispute, discord, and in general the worst of a group of men or objects. In the Kali Yuga man and society attain the supreme point of disintegration. According to the *Viṣṇu Purāṇa* (IV, 24) the syndrome of the Kali Yuga is recognized by the fact that during this epoch property alone confers social rank, wealth becomes the sole criterion of virtue, passion and lewdness the sole bonds between mates, falsehood the sole condition of success in life, sexuality the sole means of enjoyment, and an outward, purely ritualistic religion is confounded with spirituality. For several thousand years, it goes without saying, we have been living in the Kali Yuga.

The figures 4, 3, 2, and 1 denote both the decreasing length of the yugas and the progressive diminution of the Dharma prevailing in them. Correspondingly the span of human life grows shorter, morality becomes increasingly lax, and human intelligence declines. Certain Hindu schools, the Pāñcarātra for example, establish a connection between the "decline of knowledge" (*jñāna bhraṃśa*) and the theory of cycles.

The relative duration of each of these four yugas may be reckoned in various ways: everything depends on the value accorded to the years, which may be considered as human years or as divine years, each of which embraces 360 human years. According to certain sources,[3] the Kṛta Yuga measures 4,000 years plus 400 years each of dawn and of dusk; then follow the Tretā Yuga, measuring 3,000 years, the Dvāpara, measuring 2,000 years, and the Kali Yuga, of 1,000 (plus the corresponding dawns and dusks, of course). A complete cycle, a mahāyuga, consequently comprises 12,000 years. The

3 *Manu*, I, 69ff.; *Mahābhārata*, III, 12, 826.

passage from one yuga to another occurs in the course of a dusk, marking a decrescendo within each yuga, which always ends with a stage of darkness. As we approach the end of the cycle—that is, the fourth and last yuga—the darkness thickens. The last yuga, in which we now find ourselves, is regarded as the "age of darkness" par excellence, for by a play on words it is associated with the goddess Kālī, the "Black." Kālī is one of the numerous names of the Great Goddess, of Śakti, consort of the god Śiva. This name for the Great Goddess has been related to the Sanskrit word *kāla*, "time": Kālī according to this etymology is not only "the Black One" but also the personification of Time.[4] But regardless of the etymology, the association of *kāla*, Time, with the goddess Kālī and Kali Yuga is structurally justified: Time is black because it is irrational, hard, pitiless; and Kālī, like all the other Great Goddesses, is the mistress of Time, of the destinies she forges and accomplishes.

A complete cycle, a mahāyuga, ends in a "dissolution," a *pralaya*, which is repeated more radically (*mahāpralaya*, the "Great Dissolution") at the end of the thousandth cycle. For later speculation has amplified the primordial rhythm of "creation-destruction-creation" *ad infinitum*, projecting the unity of measure, the yuga, into vaster and vaster cycles. The 12,000 years of a mahāyuga have been considered as "divine years," each comprising 360 years; this would yield a total of 4,320,000 years for a single cosmic cycle. A thousand such mahāyugas constitute a *kalpa* ("form"); 14 kalpas make up a *manvantāra* (so called because each manvantāra is held to be governed by a Manu, or mythical ancestor-king). One kalpa is equivalent to a day in the life of Brahmā; another kalpa to a night. A hundred of these "years" of Brahmā, or 311,000 billion human years, constitute the life of the god. But even this considerable life-span of Brahmā does not exhaust Time, for the gods themselves are not eternal and the cosmic creations and destructions go on forever.

The essential element in this avalanche of figures is the cyclical character of cosmic Time. The same phenomenon (creation-destruction-new creation), foreshadowed in each yuga (dawn and dusk) but fully realized in a mahāyuga, is repeated over and over. The life of Brahmā comprises 2,560,000 of these mahāyugas, each one consisting of the same stages (Kṛta, Tretā, Dvāpara, Kali), and ending in a *pralaya*, a *ragnarök*. (A "definitive" de-

4 Cf. J. Przyluski, "From the Great Goddess to Kāla," *Indian Historical Quarterly* (Calcutta), XIV (1938), 267–74.

struction, or total dissolution of the cosmic Egg occurs in the *mahāpralaya* at the end of each kalpa. The mahāpralaya implies a regression of all the "forms," the modes of existences, into the original undifferentiated *prakṛti*. On the mythical plane nothing subsists but the primordial Ocean, on the surface of which sleeps the Great God Viṣṇu.)

The ideas that stand out from this orgy of figures are: (1) a metaphysical depreciation of *human history*, which by the mere fact of its duration provokes an erosion of all *forms*, exhausting their ontological substance;[5] (2) the notion of the *perfection of beginnings*, a universal tradition which is here exemplified in the myth of a paradise which is gradually lost by the simple fact that it is realized, takes form, and exists in time; and above all (3) the eternal repetition of the fundamental *cosmic rhythm*, the periodic destruction and re-creation of the universe. From this cycle without beginning and end, which is the cosmic manifestation of *māyā*, man can save himself only by an act of spiritual freedom (for all Indian soteriological solutions reduce themselves to a previous deliverance from the cosmic illusion, and to spiritual freedom).

The two great heterodoxies, Buddhism and Jainism, accept this same pan-Indian doctrine of cyclical time in its broad outlines and liken it to a wheel with twelve spokes (this image occurs also in the Vedic texts).[6] Buddhism measures the cosmic cycles by the unit of the *kalpa* (Pāli: *kappa*), which is divided into a variable number of what the texts call "incalculables," *asaṃkhyeya* (Pāli: *asaṅkheyya*). The Pāli sources in general speak of 4 asaṅkheyyas and 100,000 kappas.[7] In the Mahāyānic literature the number of incalculables varies between 3, 7, and 33, and they are related to the career of the Bodhisattva in the diverse cosmoses. The progressive decadence of man is marked in the Buddhist tradition by a continuous diminution in his life span. Thus, according to the *Dīgha-Nikāya* (II, 2–7), the length of man's life was 80,000 years at the epoch of the first Buddha, Vipassi, who appeared 91 kappas ago; it was 70,000 years at the epoch of the second Buddha, Sikhi (31 kappas ago), and so on. The seventh Buddha, Gautama, makes his appearance when the human life span amounts to only 100 years, the absolute minimum. (We find the same motif in the Iranian apocalypses.) Yet for Buddhism as for all Indian speculation, time is un-

5 On all this see *The Myth of the Eternal Return*, pp. 130ff. and passim.
6 Cf., for example, *Atharva-Veda*, X, 8, 4; *Ṛg-Veda*, I, 164, 115.
7 Cf., for example, *Jātaka*, I, p. 2.

limited; and the Bodhisattva is incarnated in order to announce the glad tidings of salvation to all men, for ever and ever. The sole possibility of escaping from time, of breaking through the iron ring of existences, is to abolish the human condition and attain to Nirvāṇa. All these innumerable "incalculables" and eons also have a soteriological function: the mere contemplation of them terrorizes man and compels him to realize that he must begin this same evanescent existence over and over again, billions of times, always enduring the same endless sufferings. And the effect of this is to exacerbate his will to escape, to impel him to transcend his condition as an "existent" once and for all.

COSMIC TIME AND HISTORY

Let us for a moment consider this vision of infinite Time, of the endless cycle of creation and destruction, this myth of the eternal return, as an instrument of knowledge and means of liberation. In the perspective of Great Time, all existence is precarious, evanescent, illusory. Considered in the light of the major cosmic rhythms—that is, of the mahāyugas, kalpas, manvantāras—not only do human existence and history, with all their empires, dynasties, revolutions, and counterrevolutions without number, prove to be ephemeral and in a sense unreal, but the universe itself is bereft of reality, for as we have seen, universes are born continuously from the innumerable pores of Viṣṇu and vanish as rapidly as air bubbles bursting on the surface of the waters. Existence *in* Time is ontologically nonexistence, unreality. It is in this sense that we must understand the belief of Indian idealism, and first and foremost of the Vedānta, that the world is illusory, that it lacks reality because its duration is limited, for, seen in the perspective of eternal recurrence, it is nonduration. This table is unreal not because it does not exist in the strict sense of the term, not because it is an illusion of our senses, for it is not an illusion: at this precise moment it exists—rather, this table is illusory because it will no longer exist in ten thousand or one hundred thousand years. The historical world, the societies and civilizations arduously built by the effort of thousands of generations, all this is illusory because, from the standpoint of the cosmic rhythms, the historical world endures for only the space of an instant. In drawing the logical conclusions from the lesson of infinite Time and the Eternal Return, the Vedāntist, the Buddhist, the Ṛṣi, the Yogi, the Sādhu, etc. renounce the world and seek absolute Reality; for only knowledge of the Absolute

helps them to deliver themselves from illusion, to rend the veil of Māyā.

But renunciation of the world is not the only consequence which an Indian is justified in drawing from the discovery of infinite, cyclical Time. As we begin to understand today, India has not only known negation and total rejection of the world. Starting from this same dogma of the fundamental unreality of the cosmos, Indian thought also mapped out a road that does not necessarily lead to asceticism and abandonment of the world. An example is the *phalatṛṣṇavairāgya* preached by Kṛṣṇa in the *Bhagavad-Gītā,* which is to say, "renunciation of the fruits of one's actions," of the profits one might derive from action, but not of action itself.[8] The sequel to the myth of Viṣṇu and Indra recounted above throws light on this principle.

Humiliated by Viṣṇu's revelation, Indra renounces his vocation as warrior god and withdraws to the mountains to practice the harshest asceticism. In other words, he prepares to draw what seems to him the only logical consequence of his discovery of the world's unreality and vanity. He finds himself in the same situation as Prince Siddhartha immediately after abandoning his palace and his wives at Kapilavastu and undertaking his arduous mortifications. But it may be asked whether a king of the gods and a husband had the right to draw such conclusions from a metaphysical revelation, whether his renunciation and asceticism did not imperil the balance of the world. And indeed, his wife, Queen Śacī, desolate at having been forsaken, soon implores the help of their spiritual guide, Bṛhaspati. Bṛhaspati takes her by the hand and leads her to Indra. He speaks to Indra at length, lauding the merits not only of the contemplative life, but also of the active life, the life which finds its fulfillment in this world. Thus Indra receives a second revelation: he now understands that each individual must follow his own path and vocation, or, in the last analysis, do his duty. But since his vocation and duty are to remain Indra, he resumes his identity and pursues his heroic adventures, but without pride and self-conceit, for he has perceived the vanity of all "situations," even that of a king of the gods.

This sequel to the myth restores the balance: the essential is not to renounce one's historical situation, seeking vainly to attain to universal being, but to keep constantly in mind the perspectives of the Great Time, while continuing to fulfill one's duty in historical time. This is precisely the

8 Cf, for example, *Bhagavad-Gītā,* IV, 20; see Eliade, *Techniques du Yoga* (Paris, 1948), pp. 141ff.

lesson which Kṛṣṇa teaches Arjuna in the *Bhagavad-Gītā*. In India, as elsewhere in the archaic world, this access to Great Time gained by the periodic recitation of myths makes possible the indefinite prolongation of a fixed *order* which is at once metaphysical, ethical, and social. This order does not encourage an idolization of history; for the perspective of mythical Time makes any segment of historical time illusory.

As we have just seen, the myth of cyclical Time, by shattering the illusions spun by the minor rhythms of time—that is, by historical time—reveals to us the precariousness and ontological unreality of the universe, and also points a way of deliverance. Actually, we may save ourselves from the trammels of Māyā, either by the contemplative way, by renouncing the world and practicing asceticism and related mystical techniques—or by an active way, by remaining in the world, but ceasing to enjoy the "fruits of our actions" (*phalatṛṣṇavairāgya*). In both cases, the essential is not to believe *exclusively* in the reality of the forms that arise and unfold in time: we must never forget that such forms are "true" only on their own plane of reference, and are ontologically devoid of substance. As we have said, time can become an instrument of knowledge, in the sense that we need only project a thing or an individual upon the plane of cosmic Time in order to become aware of its unreality. The gnoseological and soteriological function of such a change of perspective obtained through access to the major rhythms of time is admirably elucidated by certain myths relating to Viṣṇu's Māyā.

Let us examine one of these myths in the modern, popular variant recorded by Śrī Ramakrishna.[9] A famous ascetic named Nārada has gained the favor of Viṣṇu by his innumerable austerities. The god appears to him and promises to grant a wish. "Show me the magical power of thy *māyā*," Nārada asks of him. Viṣṇu consents and beckons the ascetic to follow him. A little later, they find themselves on a deserted path in the blazing sun. Viṣṇu is thirsty and asks Nārada to go on for another few hundred yards, where a village may be seen, and to bring him back some water. Nārada hastens to the village and knocks at the door of the first house. A beautiful girl opens the door. The ascetic gazes upon her at length and forgets why he has come. He enters the house and the girl's parents receive him with the respect due to a saint. Time passes. At length Nārada marries the girl and learns to know the joys of marriage and the hardships

9 *The Sayings of Sri Ramakrishna* (Madras edn., 1938), IV, 22. Cf. another version of this myth according to the *Matsya Purāṇa*, related by Zimmer, *Myths and Symbols*, pp. 27ff.

of a peasant's life. Twelve years pass: now Nārada has three children and at the death of his father-in-law, he has inherited the farm. But in the course of the twelfth year the region is flooded by torrential rains. In one night the herds are drowned and the house collapses. Supporting his wife with one hand, holding his two children with the other, and carrying the smallest child on his shoulder, he struggles through the water. But the burden is too much for him. The smallest child slips into the water. Nārada leaves the other two and tries to recover him, but it is too late, the torrent has swept him away. While he is looking for the little one, the torrent swallows up the two other children and not long after, his wife. Nārada himself falls, and the torrent carries him along unconscious and inert as a piece of wood. When he awakens, he has been cast up on a rock. Remembering his sorrows, he bursts out sobbing. But suddenly he hears a familiar voice: "My child! Where is the water you were to bring? I have been waiting for more than half an hour!" Nārada turns his head and looks. In place of the torrent that had destroyed everything, he sees the deserted sun-baked fields. "And now do you understand the secret of my Māyā?" the God asks him.

Obviously Nārada cannot claim to understand it entirely; but he has learned one essential thing: he knows now that Viṣṇu's cosmic Māyā is manifested through time.

THE "TERROR OF TIME"

The myth of cyclical Time—of the cosmic cycles that repeat themselves *ad infinitum*—is not an innovation of Indian speculation. As we have elsewhere shown,[10] the traditional societies—whose representations of time are so difficult to grasp precisely because they are expressed in symbols and rituals whose profound meaning sometimes remains inaccessible to us—the traditional societies conceive of man's temporal existence not only as an infinite repetition of certain archetypes and exemplary gestures but also as an *eternal renewal*. In symbols and rituals, the world is recreated periodically. The cosmogony is repeated at least once a year—and the cosmogonic myth serves also as a model for a great number of actions: marriage, for example, or healing.

What is the meaning of all these myths and rites? Their central meaning is that the world is born, grows weary, perishes, and is born anew in a precipitate rhythm. Chaos and the cosmogonic act that puts an end to chaos by a

10 Cf. *The Myth of the Eternal Return*, passim.

new creation are periodically reactualized. The year—or what is understood by this term—corresponds to the creation, duration, and destruction of a world, a cosmos. It is highly probable that this conception of the periodic creation and destruction of the world, although reinforced by the spectacle of the periodic death and resurrection of vegetation, is not a creation of agricultural societies. It is found in the myths of pre-agricultural societies and is in all likelihood a lunar conception. For the most evident periodicity is that of the moon, and it was terms relating to the moon which first served to express the measurement of time. The lunar rhythms always mark a "creation" (the new moon) followed by a "growth" (the full moon), and a diminution and "death" (the three moonless nights). It is most probably the image of this eternal birth and death of the moon that helped to crystallize early man's intuitions concerning the periodicity of life and death, and subsequently gave rise to the myth of the periodic creation and destruction of the world. The most ancient myths of the deluge reveal a lunar structure and origin. After each deluge a mythical ancestor gives birth to a new mankind. And most frequently this mythical ancestor takes the form of a lunar animal. (In ethnology, this name is applied to those animals whose life reveals a certain alternation and particularly a periodic appearance and disappearance.)

Thus for "primitive" man, Time is cyclic, the world is periodically created and destroyed, and the lunar symbolism of "birth-death-rebirth" is manifested in a great number of myths and rites. It was on the basis of such an immemorial heritage that the pan-Indian doctrine of the ages of the world and of the cosmic cycles developed. Of course, the archetypal image of the eternal birth, death, and resurrection of the moon was appreciably modified by Indian thought. As for the astronomical aspect of the yugas, it was probably influenced by the cosmological and astrological speculations of the Babylonians. But these possible historical influences of Mesopotamia on India need not concern us here. What we wish to bring out at this point is that with their headlong multiplication of cosmic cycles, the Indians had in mind a soteriological aim. Terrified by the endless births and rebirths of universes, accompanied by an equal number of human births and rebirths governed by the law of karma, the Indian was obliged, as it were, to seek an issue from this cosmic wheel and from these infinite transmigrations. The mystical doctrines and techniques aimed at the deliverance of man from the pain of the infernal cycle of "life-death-rebirth" take over the mythical

images of the cosmic cycles, amplify them, and utilize them for purposes of proselytism. For the Indians of the post-Vedic period—that is, for those Indians who had discovered the "suffering of existence"—the eternal return is equivalent to the infinite cycle of transmigration governed by karma. This illusory, ephemeral world, the world of *saṃsāra*, the world of suffering and ignorance, is the world that unfolds in time. Deliverance from this world and attainment of salvation are tantamount to a deliverance from cosmic Time.

INDIAN SYMBOLISM OF THE ABOLITION OF TIME

In Sanskrit the term *kāla* is employed both for indefinite periods of time and for definite moments—as in the European languages. For example: "What *time* is it *now?*" The most ancient texts stress the temporal character of all possible universes and existences: "Time has engendered everything that has been and will be."[11] In the Upaniṣads, Brahman, the Universal Spirit, the Absolute Being, is conceived both as transcending time and as the source and foundation of everything that is manifested in time: "Lord of what has been and will be, he is both today and tomorrow."[12] And Kṛṣṇa, manifesting himself to Arjuna as a cosmic God, declares: "I am the Time which, in progressing, destroys the world."[13]

As we know, the Upaniṣads distinguish two aspects of Brahman, of universal being: "the corporeal and the incorporeal, the mortal and the immortal, the fixed (*sthita*) and the mobile, etc."[14] Which amounts to saying that both the universe in its manifest and nonmanifest aspects and the spirit in its conditioned and nonconditioned modalities repose in the One, in the Brahman which unites all opposites and all oppositions. And the *Maitri Upaniṣad* (VII, 11, 8), in establishing this bipolarity of universal being on the plane of time, distinguishes two forms (*dve rupe*) of Brahman (that is, the aspects of the "two natures" of a single essence [*tad ekam*]), as "Time and Without-Time" (*kālaś-cākalaś-ca*). In other words, Time and eternity are the two aspects of the same principle: in Brahman, the *nunc fluens* and the *nunc stans* (a term by which Boethius defined eternity) coincide. The *Maitri Upaniṣad* continues: "What precedes the Sun is Without-Time (*akāla*) and undivided (*akala*); but what begins with the Sun is Time which has parts (*sakala*) and its form is the Year . . ."

11 *Atharva-Veda*, XIX, 54, 3.
12 *Kena Upaniṣad*, IV, 13.
13 *Bhagavad-Gītā*, XI, 32.
14 *Bṛhadāraṇyaka Upaniṣad*, II, 3, 1.

The expression "What precedes the Sun" may be interpreted cosmologically as relating to the epoch which preceded the Creation—for in the intervals between the mahāyugas or kalpas, during the Great Çosmic Nights, time no longer exists—but its application is above all metaphysical and soteriological: it refers to the paradoxical situation of him who obtains illumination, who becomes a *jīvan-mukta*, who is "delivered in this life," and thereby transcends time in the sense that he no longer participates in it. Thus the *Chāndogya Upaniṣad* (III, 11) declares that for the sage, the illumined one, the sun remains motionless. "But after having risen to the zenith it (the Sun) will never rise or set again. It will remain alone in the Center (*ekala eva madhye sthātā*). Whence this verse: 'There (in the transcendent world of *brahman*) it has never set and never risen . . .' It neither rises nor sets; for him who knows the doctrine of *brahman* it is in the heavens once and for all (*sakṛt*)."

Here, of course, we have a concrete image of transcendence: at the zenith, that is, at the summit of the celestial vault, at the "center of the world"—where a cutting-across the planes, a communication between the three cosmic zones, is possible—the sun (= time) remains immobile for "him who knows"; the *nunc fluens* is paradoxically transformed into a *nunc stans*. Illumination, understanding, accomplishes the miracle of an escape from time. In the Vedic texts and Upaniṣads the paradoxical instant of illumination is likened to the lightning flash. Brahman is understood suddenly, like a lightning flash.[15] "In a lightning flash the truth."[16] (In both Greek metaphysics and Christian mysticism we find the same image used to denote spiritual illumination.)

Let us pause for a moment to consider this mythical image: the zenith which is at once the summit of the world and the "center" par excellence, the infinitesimal point through which passes the cosmic axis (*Axis Mundi*). In our last year's lecture we showed the importance of this symbolism for archaic thought.[17] A "center" represents an ideal point belonging not to profane, geometric space, but to sacred space, a point in which communication with heaven or hell may be realized; in other words, a center is the paradoxical place that cuts across the planes; it is a place where the sensuous world may be transcended. But by transcending the Universe, the created

15 *Kena Upaniṣad*, IV, 4, 5. 16 *Kauṣītaki Upaniṣad*, IV, 2.

17 Cf. Eliade, "Psychologie et histoire des religions: à propos du symbolisme du 'centre,'" *EJ 1950*, pp. 247–82.

world, one also transcends time and achieves stasis, the eternal intemporal present.

The relation between the acts of transcending space and of transcending the temporal flux is elucidated by a myth relating to the nativity of the Buddha. The *Majjhima-Nikāya* (III, p. 123) relates that "as soon as he was born, the Bodhisattva set his feet flat on the ground and turning toward the north, took seven steps, sheltered by a white parasol. He contemplated all the regions round about him and said with the voice of a bull: 'I am the highest in the world, I am the best in the world, I am the oldest in the world; this is my last birth; for me there will never again be a new existence.'" This mythical picture of the Buddha's birth is carried over with certain variations into the subsequent literature of the *Nikāya-Āgamas*, the *Vinaya*, and the biographies of the Buddha.[18] The *sapta padāni*, seven steps which carry the Buddha to the summit of the world, also play a part in Buddhist art and iconography. The symbolism of these seven steps is quite transparent.[19] The phrase "I am the highest in the world" (*aggo'ham asmi lokassa*) signifies the spatial transcendence of the Buddha. For he attained to the "summit of the world" (*lokkagge*) by traversing the seven cosmic stories, which, as we know, correspond to the seven planetary heavens. But in so doing he likewise transcends Time, for in the Indian cosmology, the creation begins at the summit, which is therefore the "oldest" point. That is why the Buddha cries out: "I am the oldest in the world" (*jettho'ham asmi lokassa*). For in attaining to the cosmic summit, the Buddha becomes contemporaneous with the beginning of the world. He has magically abolished time and creation, and finds himself in the atemporal instant preceding the cosmogony. The irreversibility of cosmic time, a terrible law for all those who live in illusion, no longer counts for the Buddha. For him time is reversible, and can even be anticipated: for he knows not only the past but also the future. In addition to abolishing time, the Buddha can pass through it backward (*patiloman*, Skr. *pratiloman*, "against the fur"), and this will be equally true for the Buddhist monks and the yogis who, before obtaining their Nirvāṇa or their *samādhi*, effect a "return backward," which enables them to know their previous existences.

18 In a long note to his translation of the *Mahāprajñāpāramitaśastra* of Nāgārjuna, Etienne Lamotte has collected and arranged the most important of these; cf. *Le Traité de la grande vertu de sagesse de Nāgārjuna*, Book I (Louvain, 1944). pp. 6ff.

19 Cf. Eliade, "Les Sept Pas du Bouddha," in *Pro Regno, pro Sanctuario, Hommage Van der Leeuw* (Nijkerk, 1950), pp. 169-75.

THE "BROKEN EGG"

Side by side with this image of the Buddha transcending space and time by cutting across the seven cosmic planes to the "center" of the world and simultaneously returning to the atemporal moment which precedes the creation of the world, we have another image which felicitously combines the symbolisms of space and time. In a remarkable article, Paul Mus calls attention to this text from the *Suttavibhanga:*[20]

> When a hen has laid eggs, says the Buddha, eight or ten or twelve of them, and she has sat upon them and kept them warm for a sufficient time; and when the first chick breaks through the shell with his toe or beak and issues happily from the egg, what shall we call this chick, the oldest or the youngest?—We shall call him the oldest, venerable Gautama, for he is the firstborn among them.—So likewise, O Brāhman, I alone among the men who live in ignorance and are as though enclosed and imprisoned in an egg have burst this shell of ignorance, and I alone in all the world have obtained the beatific universal dignity of the Buddha. Thus, O Brāhman, I am the oldest, the noblest among men.

As Paul Mus says, this imagery is "deceptively simple. To understand it correctly, we must remember that the Brāhmanic initiation was regarded as a second birth. The most common name for the initiates was *dvija:* 'twice-born.' But the birds, snakes, etc. were also given this name, inasmuch as they were born of eggs. The laying of the egg was likened to the 'first birth'—that is, the natural birth of man. The hatching out corresponded to the supernatural birth of initiation. Moreover, the Brāhmanic codes establish the principle that the initiate is socially superior, 'older' than the uninitiated, whatever may be their relations of physical age or kinship."[21]

But this is not all. "It was scarcely possible to liken the supernatural birth of the Buddha to the breaking of the egg containing in germ the 'first-born' (*jyeshta*) of the universe without reminding the listeners of the 'cosmic egg' of Brāhmanic traditions, whence at the dawn of time there issued the primordial God of creation, variously named the Golden Embryo (Hiraṇya-garbha), the Father or Master of Creatures (Prajāpati), Agni (God of the

20 *Suttavibhaṅga*, *Pārājika* I, 1, 4; cf. H. Oldenberg, *The Buddha*, tr. Wm. Hoey (London, 1928), p. 325; Paul Mus, *La Notion du temps reversible dans la mythologie bouddhique* (Extrait de l'Annuaire de l'École Pratique des Hautes Études, section des sciences religieuses, 1938–39; Melun, 1939), p. 13.

21 Mus, pp. 13–14.

fire, and ritual Fire), or *brahman* (sacrificial principle, 'prayer,' deified text of the hymns, etc.)."[22] And the "cosmic egg" was "definitely identified with the year, the symbolic expression for cosmic Time: so that *saṃsāra*, another image of cyclical Time reduced to its causes, corresponds exactly to the mythical egg."[23]

Thus the action of transcending time is formulated in a symbolism that is both cosmological and spatial. To break the envelope of the egg is equivalent in the Buddha's parable to breaking through *saṃsāra*, the wheel of existences—in other words, to *transcending both cosmic Space and cyclical Time.* In this case, too, the Buddha makes use of images similar to those of the Vedas and Upaniṣads. The motionless sun at the zenith in the *Chāndogya Upaniṣad* is a spatial symbol which expresses the paradoxical act of escape from the cosmos with the same force as the Buddhist image of the broken egg. In describing certain aspects of Tantric Yoga, we shall encounter further archetypal images of this sort, employed to symbolize transcendence.

THE PHILOSOPHY OF TIME IN BUDDHISM

The symbolism of the seven steps of Buddha and of the cosmic egg implies the *reversibility of time*, and we shall have occasion to say more of this paradoxical process. But first we must present the broad outlines of the philosophy of time elaborated by Buddhism and particularly Mahāyāna Buddhism.[24] For the Buddhist, too, time consists of a continuous flux (*saṃtāna*), and this fluidity of time suffices to make every "form" that is manifested in time not only perishable but also ontologically unreal. The philosophers of the Mahāyāna have written copiously on what might be called the instantaneity of time—that is, the fluidity and hence unreality of the present instant which is continuously transformed into past and nonbeing. For the Buddhist philosopher, says Stcherbatsky, "existence and non-existence are not different appurtenances of a thing, they are the thing itself." As Śāntarakṣita writes, "the nature of anything is its own momentary stasis and destruction."[25] The destruction to which Śāntarakṣita alludes is not em-

22 Ibid., p. 14. 23 Ibid., p. 14, n. 1.

24 The elements of this philosophy will be found in the two volumes of T. Stcherbatsky's *Buddhist Logic* (Bibliotheca Buddhica, XXVI; Leningrad, 1930–32), and in Louis de la Vallée Poussin's valuable *Documents d'Abhidarma: La Controverse du temps* (Mélanges chinois et bouddhiques, V; Brussels, 1937), pp. 1–158. See also S. Schayer, *Contributions to the Problem of Time in Indian Philosophy* (Cracow, 1938) and Ananda K. Coomaraswamy, *Time and Eternity* (Ascona, 1947), pp. 30ff.

25 Stcherbatsky, *Buddhist Logic*, I, pp. 94ff.; *Tattvasangraha*, p. 137.

pirical destruction—for example, that of a vase which breaks when it falls to the ground—but the intrinsic and continuous annihilation of every existent that is involved in time. It is in this sense that Vasubandhu writes: "Because of immediate destruction, there is no (real) motion."[26] Movement and consequently time as such are pragmatic postulates, just as for Buddhism the ego is a pragmatic postulate; but the concept of motion corresponds to no outward reality, for it is "something" constructed by ourselves. Mahāyāna Buddhism expresses the unreality of the temporal world chiefly in terms of its fluidity and instantaneity, its continuous annihilation. From the Mahāyānic conception of time some writers have concluded that for the philosophers of the Greater Vehicle motion is discontinuous, that "motion consists of a series of immobilities" (Stcherbatsky). But as Coomaraswamy remarks, a line is not made up of an infinite series of points but presents itself as a continuum.[27] Vasubandhu himself said as much: "The arising of instants is uninterrupted" (*nirantara-kṣaṇa-utpāda*). Etymologically the term *saṃtāna*, which Stcherbatsky translated by "series," means "continuum."

There is nothing new in all this. The logicians and metaphysicians of the Greater Vehicle did no more than derive the ultimate conclusions from the pan-Indian intuitions concerning the ontological unreality of everything existing in time. Fluidity conceals unreality. The only hope and path of salvation is the Buddha, who has revealed the Dharma (absolute reality) and disclosed the road to Nirvāṇa. Indefatigably he repeats the central theme of his message: all that is contingent is unreal; but he never forgets to add: "this is not I" (*na me so attā*). For he, the Buddha, is identical with the Dharma, and consequently he is "simple, noncomposite" (*asaṃkhata*) and "atemporal, timeless" (*ākaliko*, as the *Aṅguttara-Nikāya* puts it, IV, 359–406). Over and over the Buddha repeats that he "transcends the eons" (*kappātīto . . . vipamutto*), that he "is not a man of the eons" (*akkapiyo*), which is to say that he is not really involved in the cyclical flux of time, that he has transcended cosmic Time.[28] For him, according to the *Saṃyutta-Nikāya* (I, 141) "there exists neither past nor future" (*na tassa paccha na purattham atthi*). For the Buddha all times are made present

26 *Abhidharmakośa*, IV, 1, quoted by Coomaraswamy, p. 58. Cf. the translation with commentary by Louis de la Vallée Poussin, *L'Abhidharmakoça de Vasubandhu* (5 vols., Paris, 1923–31).

27 Coomaraswamy, p. 60.

28 *Sutta Nipāta*, 373, 860ff.; and other texts collected by Coomaraswamy, pp. 40ff.

(*Viṣuddhi Magga*, 411); in other words, he has abolished the irreversibility of time.

The total present, the eternal present of the mystics, is stasis, nonduration. Translated into spatial symbolism: nonduration, the eternal present, is immobility. And indeed, to indicate the unconditioned state of the Buddha or the *jīvan-mukta*, Buddhism—like Yoga—makes use of terms relating to immobility, stasis. "He whose thought is stable" (*ṭhita-citto*),[29] "he whose spirit is stable" (*ṭhit'attā*), etc.[30] It should not be forgotten that the first and simplest definition of Yoga is given by Patañjali himself at the beginning of his *Yoga-Sūtras* (I, 2): *yogaḥ cittavṛttinirodhaḥ*, "yoga is the suppression of the states of consciousness." But this suppression is only the final goal. The yogi begins by "halting," by "immobilizing" his states of consciousness, his psychomental flux. (The most usual sense of *nirodha* is "restriction or obstruction," the act of enclosing, etc.). We shall come back to the consequences of this "stoppage," this "immobilization" of the states of consciousness, for the yogi's experience of time.

He "whose thought is stable" and for whom time no longer flows lives in an eternal present, in the *nunc stans*. The present moment, the *nunc*, is called *kṣaṇa* in Sanskrit and *khaṇa* in Pali.[31] It is by the *kṣaṇa*, the "moment," that time is measured. But this term also has the meaning of "favorable moment, opportunity," and for the Buddha it is through the mediation of such a moment that one can escape from time. The Buddha exhorts his adepts "not to lose the moment," for "those who lose the moment will lament." He congratulates those monks who have "seized the moment" (*khaṇo vo paṭiladdho*); and he pities those "for whom the moment is passed" (*khaṇātītā*).[32] This means that after the long road traveled in cosmic Time, through innumerable existences, the illumination is instantaneous (*ekakṣana*). "The instantaneous illumination" (*ekakṣaṇābhisambodhi*), as the Mahāyānic authors call it, means that the comprehension of reality occurs suddenly, like a lightning flash—a metaphor which we have already encountered in the Upaniṣads. Any moment, any *kṣaṇa*, may become the "favorable moment," the paradoxical instant which suspends time and projects the Buddhist monk into the *nunc stans*, an eternal

29 *Dīgha-Nikāya*, II, 157. 30 Ibid., I, 57.

31 See Louis de la Vallée Poussin, "Notes sur le 'moment' ou *kṣaṇa* des bouddhistes," *Rocznik Orientalistczny* (Lwow), VIII (1931), 1–13; Coomaraswamy, pp. 56ff.

32 *Saṃyutta-Nikāya*, IV, 126.

present. This eternal present is no longer part of time; it is qualitatively different from our profane "present," from this precarious present which stands out feebly between two nonentities—the past and the future—and which will cease with our death. The "favorable moment" of illumination may be compared to the lightning flash which communicates revelation, or to the mystical ecstasy which is paradoxically prolonged beyond time.

IMAGES AND PARADOXES

It should be noted that all these images through which the Indians endeavored to express the paradoxical act of escape from time also serve to express *the passage from ignorance to illumination* (or, in other words, from "death" to "life," from the contingent to the absolute, etc.). We may group them roughly into three classes: (1) the images which suggest the abolition of time and hence illumination by a cutting across the planes (the "broken egg," the lightning flash, the seven steps of the Buddha); (2) those which refer to an inconceivable situation (the immobility of the sun at the zenith, the cessation of the flux of the states of consciousness, total cessation of respiration in the practice of Yoga, etc.); and (3) the contradictory image of the "favorable moment," a temporal fragment transfigured into an "instant of illumination." The two last images also suggest a cutting across the planes, for they denote a paradoxical passage from a normal state in the profane sense (the movement of the sun, the flux of consciousness, etc.) to a paradoxical state (the immobility of the sun etc.), or imply the transubstantiation which takes place within the temporal moment itself. (As we know, the passage from profane time to sacred Time provoked by a ritual also implies a "cutting across planes": liturgical Time does not prolong the profane time in which it is situated, but, paradoxically, continues the time of the last ritual accomplished).[33]

The structure of these images should not surprise us. All symbolism of transcendence is paradoxical and impossible to conceive in profane terms. The most common symbol to express the cutting across the planes and penetration into the "other world," the transcendent world (of the dead or of the gods), is the "difficult passage," the razor edge. "It is hard to pass over the whetted blade of the razor," say the poets to express the arduousness of the road (leading to supreme knowledge).[34] We are reminded of the Gospel

33 Cf. Eliade, *Traité d'histoire des religions* (Paris, 1949), pp. 332ff.
34 *Kaṭha Upaniṣad*, III, 14.

passage: "Strait is the gate and narrow the way, which leadeth unto life, and few there be that find it" (Matthew 7 : 14). The "strait gate," the razor edge, and the narrow, dangerous bridge by no means exhaust the wealth of this symbolism. Other images represent a seemingly hopeless situation. The hero of a tale of initiation must go "where night and day meet"; or find a gate in a wall that discloses none; or ascend to heaven by a passage which half opens for the barest instant; or pass between two millstones in continual movement, between two cliffs that touch continuously, or between the jaws of a monster, etc.[35] All these mythical images express the necessity of transcending the contraries, of abolishing the polarity which characterizes the human state, in order to accede to ultimate reality. As Coomaraswamy says, "whoever would transfer from this to the Otherworld, or return, must do so through the undimensioned and timeless 'interval' that divides related but contrary forces, between which, if one is to pass at all, it must be 'instantly.' "[36]

For Indian thought, the human state is defined by the existence of the contraries; deliverance (that is, abolition of the human condition) is equivalent to an unconditional state which transcends the contraries, or, what amounts to the same thing, a state in which the contraries coincide. We are reminded that the *Maitri Upaniṣad*, in speaking of the manifest and unmanifest aspects of being, distinguishes two forms of *brahman* as "Time and Timeless." For the sage, *brahman* plays the part of an exemplary model; deliverance is an "imitation of *brahman*." Thus for "him who knows" there ceases to be an opposition between "time" and the "timeless"; they cease to be distinct from each other; the pairs of opposites are done away with. To illustrate this paradoxical situation Indian thought, like that of other archaic peoples, makes use of images which contain contradiction in their very structure (images such as finding a door in a wall which reveals none).

The coincidence of opposites is still better elucidated by the image of the "instant" (*kṣana*) which is transformed into a "favorable moment." Apparently nothing distinguishes any fragment of profane time from the intem-

35 On these motifs see A. B. Cook, *Zeus* (Cambridge, 1940), III, 2, appendix P: "Floating Islands," pp. 975–1016; Coomaraswamy, "Symplegades," *Studies and Essays in the History of Science and Learning Offered in Homage to George Sarton* (New York, 1947), pp. 463–88; Eliade, *Le Chamanisme et les techniques archaïques de l'extase* (Paris, 1951), pp. 419ff. and passim.

36 Coomaraswamy, "Symplegades," p. 486.

poral instant obtained by illumination. To understand fully the structure and function of such an image, we must recall the dialectic of the holy: any object at all may paradoxically become a hierophany, a receptacle of the sacred, while still continuing to participate in its cosmic environment. (A holy stone for all its holiness still remains a *stone* along with other stones, etc.[37] From this point of view the image of the "favorable moment" expresses the paradox of the coincidence of opposites even more forcefully than do the images of contradictory situations, immobility of the Sun, etc.)

TECHNIQUES OF ESCAPE FROM TIME

Instantaneous illumination, the paradoxical leap outside of time, is obtained in consequence of a long discipline which implies a philosophy as well as a mystical technique. Let us consider a few techniques aimed at halting the temporal flux. The most common of them, which is truly pan-Indian, is the *prāṇāyāma*, the rhythmization of breathing. In this connection it should be noted that although its ultimate aim is to transcend the human state, the practice of Yoga starts out by ameliorating this same human state, by giving it a fullness and a majesty which seem inaccessible to the profane. We are not thinking immediately of Haṭha Yoga, whose express aim is an absolute mastery of the human body and psyche. All forms of Yoga imply a previous transformation of profane man—this feeble, dispersed slave of his body, incapable of a true mental effort—into a glorious Man: possessed of perfect physical health, absolute master of his body and his psychomental life, capable of concentration, conscious of himself. What Yoga seeks ultimately to transcend is a perfect man of this sort, and not merely a profane, everyday man.

In cosmological terms (and to penetrate Indian thought we must always use this key), Yoga starts from a *perfect cosmos* in order to transcend the *cosmic condition as such*—it does not start from a chaos. The physiology and psychomental life of the profane man resemble a chaos. Yoga practice begins by organizing this chaos, by "cosmifying" it. Little by little *prāṇāyāma*, the rhythmization of breathing, forms the yogi into a cosmos: breathing is no longer arhythmic, thought is no longer dispersed, the circulation of the psychomental forces is no longer anarchic.[38] But in thus working on the

37 On the dialectic of the holy, see Eliade, *Traité d'histoire des religions*, pp. 15ff.
38 Cf. Eliade, "Cosmical Homology and Yoga," *Journal of the Indian Society of Oriental Art* (Calcutta), V (1937), pp. 188–203. On the *prāṇāyāma*, see Eliade, *Techniques du Yoga*, pp. 75ff.; *Yoga: Immortality and Liberty* (New York, in press), passim.

respiration, the yogi works directly on lived time. And there is no adept of Yoga who, in the course of these breathing exercises, has not experienced another quality of time. Attempts have been made to describe this experience of lived time during the *prāṇāyāma;* it has been compared to the beatific time of one listening to good music, to the raptures of love, to the serenity or plenitude of prayer. But all these comparisons are inadequate. What is certain is that in progressively decelerating the rhythm of breathing, in prolonging the expiration and inspiration, and increasing the interval between these two elements of respiration, the yogi experiences a time different from ours.[39]

It seems to us that the practice of *prāṇāyāma* presents two essential points: (1) the yogi starts out by "cosmifying" his body and psychomental life; (2) by *prāṇāyāma* the yogi succeeds in integrating himself at will with the diverse rhythms of lived time. In his extremely concise manner, Patañjali recommends "the control of the moments and of their continuity.[40] The later Yogic-Tantric treatises give more details regarding this "control" of time. The *Kālacakra Tantra*, for example, goes so far as to relate inspiration and expiration with day and night, then with fortnights, months, years, arriving finally at the great cosmic cycles.[41]

In other words the yogi by his own respiratory rhythm may be said to repeat Great Cosmic Time, the periodic creations and destructions of the universe. The purpose of this exercise is twofold: on the one hand the yogi

39 It is even possible that the rhythmization of breathing has considerable effects on the physiology of the yogi. I have no competence in this field, but I was struck, at Rishikesh and elsewhere in the Himalayas, by the admirable physical condition of the yogis, although they took scarcely any food. One of the neighbors of my *kutiar* at Rishikesh was a *naga*, a naked ascetic who spent nearly the whole night in practicing the *prāṇāyāma*, and never ate anything more than a handful of rice. He had the body of a perfect athlete, showed no signs of undernourishment or fatigue. I wondered how it came about that he was never hungry. "I live only in the daytime," he replied. "At night I reduce the number of my respirations by one-tenth." I am not entirely sure of having understood what he meant, but perhaps it was simply that since vital time is measured by the number of inspirations and expirations, he lived in ten hours only a tenth part of our time, namely one hour, by virtue of the fact that during the night he reduced his breathings to one-tenth of the normal rhythm. Counted in respiratory hours, a day of twenty-four solar hours only had a length of twelve to thirteen hours for him: thus he ate a handful of rice not every twenty-four hours, but every twelve or thirteen hours. This is only a hypothesis and I do not insist. But, as far as I know, there has still been no satisfactory explanation for the surprising youthfulness of the yogis.

40 *Yoga-Sūtra* III, 52.

41 *Kālacakra Tantra*, quoted by Mario E. Carelli in his edition of Sekoddeśatīkā: *Sekoddeśaṭīkā of Naḍapāda (Nāropā), Being a Commentary of the Sekoddeśa Section of the Kālacakra Tantra* (Gaekwad Oriental Series, XC; Baroda, 1941), preface, pp. 16ff.

is led to identify his own respiratory moments with the rhythms of Great Cosmic Time, and in so doing realizes the relativity and ultimate unreality of time. But on the other hand, he obtains the reversibility of the temporal flux (*sāra*): he returns backward, relives his previous existences and, as the texts put it, "burns" the consequences of his former acts; he annuls these acts in order to escape from their karmic consequences.

In such an exercise of *prāṇāyāma* we discern a will to relive the rhythms of the Great Cosmic Time: the experience is similar to that of Nārada related above; but here it is obtained voluntarily and consciously. Proof that this is so may be found in the assimilation of the two "mystical veins," *iḍa* and *piṅgala*, to the moon and the sun.[42] In the mystical physiology of Yoga, *iḍa* and *piṅgala* are, as we know, the two canals through which psychovital energy circulates within the human body. The assimilation of these two mystical veins to the sun and the moon completes the operation that we have called the cosmification of the yogi. His mystical body becomes a microcosm. His inspiration corresponds to the course of the sun—that is, to the day; and his expiration to the moon—that is, the night. Thus the breathing rhythm of the yogi ultimately enters into the rhythm of Great Cosmic Time.

But this entrance into Great Cosmic Time does not abolish time as such; only its rhythms have changed. The yogi lives a cosmic Time, but he nevertheless continues to live in time. Yet his ultimate purpose is to issue from time. And this is what happens when the yogi succeeds in unifying the two currents of psychic energy that circulate through *iḍa* and *piṅgala*. By a process that is too difficult to explain in a few words, the yogi stops his respiration and, by unifying the two currents, concentrates them and forces them to circulate through the third "vein," *suṣumnā*, the vein situated at the "center." And according to the *Haṭhayoga-pradīpikā* (IV, 16–17), "*Suṣumnā* devours Time." This paradoxical unification of the two mystical veins *iḍa* and *piṅgala*, the two polar currents, is equivalent to the unification of the sun and the moon—that is, the abolition of the cosmos, the reunion of contraries, which amounts to saying that the yogi transcends both the created universe and the time that governs it. We recall the mythical image of the egg whose shell is broken by the Buddha. Thus it happens to the

42 See the texts collected by P. C. Bagchi, "Some Technical Terms of the Tantras," *Calcutta Oriental Journal*, I : 2 (November, 1934), 75–78, especially pp. 82ff.; and Shashibhusan Dasgupta, *Obscure Religious Texts* (Calcutta, 1946), pp. 274ff.

gi who "concentrates" his breath in *suṣumnā*: he breaks the shell of his microcosm, he transcends the contingent world which exists in time. A considerable number of Tantric texts allude to this absolute, intemporal state in which there exists neither day nor night, "in which there is neither sickness nor old age"—naïve and approximative formulas for the "escape from time." To transcend day and night means to *transcend the contraries*, which corresponds on the temporal plane to the passage through the "strait gate" on the spatial plane. This experience of Tantric Yoga prepares the way for *samādhi*, the state which is usually translated as "ecstasy" but which we prefer to call "enstasis." The yogi ultimately becomes a *jīvan-mukta*, one who is "delivered in this life." We cannot conceive of his existence, for it is paradoxical. The *jīvan-mukta* is said to live no longer in time, in our time—but in an eternal present, in the *nunc stans*.

But these processes of Tantric Yoga do not exhaust the Indian techniques of "escape from time." From a certain point of view one might even say that Yoga as such aims at deliverance from temporal servitude. All Yoga exercises of concentration or meditation isolate the adept, remove him from the flux of psychomental life, and consequently reduce the pressure of time. Moreover, the yogi aims at a destruction of the subconscious, at a combustion of the *vāsanās*. Yoga, as we know, attaches a considerable importance to the subliminal life designated by the term *vāsanās*. "The *vāsanās* have their origin in memory," writes Vyāsa in his commentary on *Yoga-Sūtra* IV, 9. But more is involved than the individual memory, which for the Hindu includes not only the recollection of actual existence but the karmic residues of innumerable previous existences. The *vāsanās* also represent the entire collective memory transmitted through language and traditions: in a sense, they are equivalent to Professor Jung's collective unconscious.

In seeking to modify the subconscious and finally to "purify," to "burn" and to "destroy" it,[43] the yogi endeavors to deliver himself from memory—that is, to abolish the work of time. And this is no specialty of the Indian techniques. A mystic of the stature of Meister Eckhart never ceases to repeat that "there is no greater obstacle to union with God than time," that time prevents man from knowing God, etc. And in this connection it is not with-

43 Such a presumption will probably seem vain if not dangerous to the Western psychologist. Though claiming no right to intervene in this debate, I should like to remind the reader of the extraordinary psychological science of the yogis and the Hindu ascetics, and on the other hand, of the ignorance of Western scientists in regard to the psychological reality of the Yogic experiences.

out interest to recall that archaic societies periodically "destroy" the world in order to remake it and consequently to live in a new universe without "sin"—that is, without history, without memory. A great number of periodic rituals also aim at a collective wiping away of sin (public confessions, the scapegoat, etc.), amounting ultimately to an abolition of the past. All this, it seems to me, proves that there is no breach in continuity between the man of the archaic societies and the mystic belonging to the great historic religions: both fight with the same energy, though with different means, against memory and time.

But this metaphysical deprecation of time and this struggle against "memory" do not exhaust the attitude of Indian spirituality toward time and history. Let us recall the lesson of the myths of Indra and Nārada: Māyā is manifested through time, but Māyā itself is only the creative force and above all the cosmogonic force of the absolute Being (Śiva, Viṣṇu); and that means that the *Great Cosmic Illusion is ultimately a hierophany.* This truth, revealed in myths by a series of images and stories, is expounded more systematically by the Upaniṣads,[44] and the later philosophers who state explicitly that the ultimate foundation of things, the *Ground,* is constituted *both by Māyā and by the Absolute Spirit,* by Illusion and Reality, by Time and Eternity. In placing all the contraries in one and the same universal void (*Śūnya*), certain Mahāyānic philosophers (for example, Nāgārjuna), and above all the various Tantric schools both Buddhist (Vajrayāna) and Hindu, have come to similar conclusions. In all this there is nothing to surprise us, for we know the eagerness of Indian spirituality to transcend the contraries and polar tensions, to unify the real, to return to the primordial One. If time as Māyā is also a manifestation of the godhead, to live in time is not in itself a "bad action"; *the bad action consists in believing that there exists nothing else, nothing outside of time.* One is devoured by time, *not* because one lives in time, but because one believes in the *reality* of time and hence forgets or despises eternity.

This conclusion is not without importance; we tend too much to reduce Indian spirituality to its extreme positions, which are intensely specialized and hence accessible only to the sages and mystics, and to forget the pan-Indian attitudes, illustrated above all by the myths. Indeed, the "escape from time" obtained by the *jīvan-mukta* amounts to an enstasis or an ecstasy inaccessible to most men. But if the escape from time remains the royal

44 See above, pp. 186f.

road of deliverance (let us recall the symbols of instantaneous illumination etc.), this does not mean that all those who have not obtained it are inexorably condemned to ignorance and servitude. As the myths of Indra and Nārada show, to be delivered from illusion it is sufficient to achieve consciousness of the ontological unreality of time and to "realize" the rhythms of Great Cosmic Time.

Thus, to recapitulate, India is not limited to two possible situations with respect to time: that of the ignorant who live solely in time and illusion—and that of the sage or yogi who endeavors to "issue from time"; there is also a third, intermediate, situation: the situation of him who, while continuing to live in his own time (historic time), preserves an opening toward Great Time, never losing his awareness of the unreality of historic time. This situation, illustrated by Indra after his second revelation, is amply elucidated in the *Bhagavad-Gītā*. It is expounded above all in the Indian spiritual literature for the use of laymen, and by the spiritual masters of modern India. It is not without interest to observe that this last Indian position is in a certain sense a continuation of primitive man's attitude toward time.

La Notion de Temps dans les Brāhmaṇas

H. de Willman-Grabowska

La notion de temps appartient aux idées qu'on appelle innées. Leur usage nous est familier; leur origine nous reste généralement inconnue. Outil indispensable à toute opération mentale, commode et facile à manier, la notion de temps se dérobe à l'examen dès qu'on tente de la saisir.

Le plus simple est de concevoir le temps sur le type de l'espace sans se soucier de l'antinomie cachée au fond d'une telle transposition de concept. Aussi pour indiquer le temps employons-nous couramment des termes empruntés à la notion d'espace. Identiques en apparence, ils sont cependant porteurs d'un sens nouveau et spécial. « Avant » et « après » appliqués à l'espace ne sont pas les mêmes « avant » et « après » appliqués au temps. L'étude de la sémantique nous fournit d'intéressantes données à cet égard.

La formation des idées abstraites est une des choses les plus curieuses dans l'évolution intellectuelle de l'homme. Il est intéressant de consulter à ce sujet d'anciens textes. Ainsi p. ex., la littérature exégétique de l'Inde antique est riche en données qui nous font réfléchir. Ce n'est pas qu'elle nous livre quelque secret inattendu ou qu'elle présente, comme certains l'ont cru, un état primordial de la pensée humaine. Il n'en est rien. Ces textes présentent un mélange, on pourrait dire, paradoxal de spéculation raffinée et subtile et d'observation naïve, simpliste dans ses conclusions. C'est surtout le cas des Brāhmaṇas, créations des savants, des collèges de prêtres et des scoliastes.

Nous livrent-ils leur pensée avec toute la sincérité voulue ? Sûrement non. Ils cherchent même à être obscurs: *paro'kṣapriyā vai devāḥ*, Mais ils ne peuvent se soustraire à l'action des idées qui ont été élaborées bien avant, ni à celle des représentations qui avaient cours dans le vulgaire. Aussi avant d'analyser les expressions de temps dans les Brāhmaṇas jetons un coup d'œil sur les matériaux fournis par les Védas. Quelle que fût l'origine des chants védiques et quelle que fût leur première destination, adaptés aux fins du culte ils ont subi l'empreinte de la pensée sacerdotale et offrent ainsi le premier degré des conceptions que les Brāhmaṇas développent plus tard à leur manière.

Les expressions de temps dans le Ṛg-Veda sont généralement peu précises. On y rencontre le plus souvent les notions originairement spatiales « avant » et « après ». Tel p. ex. le très fréquent *pára*, textuellement « éloigné, opposé, situé à l'autre bord » etc., dérivé du verbe *pṛ* a sens principal de « transporter à travers . . . »; il s'emploie aussi bien pour dire « éloigné dans le temps, tardif, postérieur » etc. Son opposé est *pū́rva* « premier, antérieur » et les adverbes *purás, purā́*. Le comparatif *ápara* et le superlatif *apamá* « le plus éloigné », s'ils ont pour base *ápa*, notion essentielle d'ablatif, de séparation, présentent à côté de l'idée spatiale celle de mouvement. Rappelons-nous « tempus est . . . motus » de St. Thomas d'Aquin. Mais on ne saurait dire s'il est question ici d'un temps passé ou d'un temps futur. L'un et l'autre, comme en témoigne maint passage du Ṛg-Veda (cf. RV. X, 86, 11), peuvent être exprimés au moyen du même adjectif ou adverbe. Le contexte donne le sens plus précis. Et dès qu'une tournure revient plus souvent, une nuance sémantique de plus en plus nette s'attache aux mots dont l'usage était encore avant peu indéterminé. Il en sera ainsi pour la particule *átha* qui prendra dans les Brāhmaṇas la valeur de « ensuite ». Cf. *átha śūrpám ā́datte . . . átha havír nírvapati*, ŚB. I, 4, 4, 19–20, « ensuite il prend le van . . . et ensuite il y jette le haviḥ » etc.

Les langues, et les langues indoeuropéennes en particulier, se sont créé des formes verbales spécialement destinées à opposer une action située dans le passé ou attendue dans le futur à l'action qui se développe parallèlement au processus de sa perception c'est-à-dire à l'action dite « au présent ». D'une part l'augment et l'abrègement des désinences primaires en désinences secondaires, d'autre part l'intercalation d'une syllabe (au futur) ou d'un simple phonème remplissent plus ou moins le rôle d'indicateurs du futur et du passé. Ce n'était qu'un expédient, car le verbe indoeuropéen désignait plutôt l'aspect de l'action; le temps n'en était qu'une circonstance secondaire. La véritable représentation temporelle ne peut être obtenue, que par le rapport de deux faits, aussi a-t-on été obligé de fabriquer des phrases complexes où une « subordonnée » (elle ne passait pas comme « subordonnée » pour tous les sujets parlants) précisait la relation temporelle insuffisamment indiquée. Des tournures comme le locatif absolu pallient en vieil indien à la pauvreté de structure et l'emploi des gérondifs permet de se passer de propositions circonstancielles. D'autre part on se trouve de façon régulière en présence des verbes, « il est, il y a » (*ásti*) qui disent dans la prose narrative « il était, il y avait ». L'élément *sma*, d'origine deictive, sans aucune valeur temporelle, confère pourtant à l'action du verbe une nuance de passé. Et quant au futur, un verbe au présent peut aussi bien l'exprimer, cf. entre autres RV. X, 86, 11 *ná hy àsyā*

aparám caná jarasā́ márate pátir « car jamais (ou: aucunement) son mari ne mourra de vieillesse ».

Pour dire « maintenant » le védique a plusieurs mots. Les plus usités sont *a-dyā́*, probablement composé d'un thème démonstratif avec le nom du « jour », et *nū́nam* qui a l'air d'être un redoublement de *nú/nū́*, mot qui sert à souligner un autre mot de la phrase, comme notre « justement ».

Le temps abstraction, durée successive et persistante, ne semble pas appartenir aux notions anciennement acquises. Le terme *kālá* qui a fait fortune plus tard, n'apparaît qu'une fois et dans la partie la plus récente du RV. Il a là le sens (X, 42, 9) de « en temps dû », c'est-à-dire à un point déterminé de quelque chose d'indéterminé. Un adjectif, *sanātána*, semblait correspondre à notre « éternel ». Il est attesté à côté de *sána* « vieux », *sánā* adverbe « depuis l'antiquité » et de la racine *tan* « étendre, continuer » etc., cf. *tána* « la postérité » qui continue la race. Whitney (Gram. § 1245 e) compte pourtant *tana* parmi les suffixes.

Bien qu'on se soit déjà demandé, cf. RV. X, 129, qu'est-ce qu'il y a eu avant l'être et non-être, avant le jour et la nuit, donc avant le début du temps marqué par la succession des phénomènes, on se contentait pour tous les jours d'une éternité relative. L'immortalité, décideront plus tard les Brāhmaṇas, c'est une vie de cent ans, *śatā́yuḥ* ou *pūrṇā́yuḥ* « le plein âge », l'infini ramené aux proportions humaines. On ajoute ensuite à cette conception celle de regénération dans l'autre monde ou même ici bas. A *jīvana* « vie », existence considérée du point de vue de la stabilité s'opposait *ā́yuḥ* (où l'on retrouve le verbe *i* « aller ») la vie-mouvement, se développant et atteignant une limite. Ainsi *ā́yuḥ* a fini par désigner la plénitude de l'âge. Il est la grande mesure du temps-mouvement (cf. « tempus est numerus motus » thomiste).

Une mesure plus ordinaire est *saṃvatsará*, l'année. On la désignait poétiquement par l'automne, saison de récolte (cf. RV. I, 89,9: « ô dieux, cent automnes pour atteindre la fin de notre vieillesse ! »), plus rarement par d'autres saisons. Avec le changement des conditions climatiques dû à l'extension de l'habitat, c'est la saison fraîche, *śiśira*, qui, d'après les Brāhmaṇas, est « le ciel » et « la tête » de l'année.

Le terme général pour nommer les saisons était *ṛtú*, dérivé de √*ṛ* « aller en avant, atteindre ». On indiquait par ce mot les époques des sacrifices, fixées d'après les constellations, *nakṣatra*. Des noms particuliers des saisons, *grīṣmá*, *hemanta* etc. ne sont cités qu'une, deux fois à la fin de la Samhitā. On dirait que les auteurs des hymnes étaient plus fortement frappés par la régularité dans le mouvement des saisons que par leurs autres propriétés; en tout cas ils ont placé le caractère

général et abstrait du phénomène au-dessus des impressions des sens. *Ṛtu* domine toutes les autres appellations.

Lorsque les Brāhmaṇas élaboraient la doctrine du sacrifice universel, les unités de temps devaient y entrer à leur tour. Evidemment ce n'était pas eulement avec leur valeur numérique.

Cette dernière était bien définie. Depuis quand? Il est difficile de le dire, mais l'observation des *nakṣatra* a sans doute formé la base du calendrier indien (cf. A. Weber « Die vedischen Nachrichten von den Naksatra »). Dès la très haute antiquité l'année indienne se composait de 360 jours divisés en 12 mois de 30 jours. On compensait la différence d'avec l'année solaire en intercalant à chaque sixième année un mois supplémentaire de 35 (SB. X, 5, 4, 5: 36) jours. La plus petite division de temps était *muhūrta*. Un jour et une nuit ensemble avaient 30 muhūrtas, « heures », de 48 minutes chacune.

Le fond de la pensée brahmanique est que le sacrifice est le microcosme de l'univers. Cette idée renversée donne une autre: l'univers avec toute sa vie n'est qu'un sacrifice continuel qui « s'étend » de lui seul. Il ne s'étendrait pas moins si le monde n'existait pas, il est quelque chose comme le temps absolu de Newton, indépendant de l'existence ou de l'inexistence des mondes. C'est au moyen du sacrifice que Prajāpati a créé le ciel et la terre, les dieux et les asuras. Tout ce qui est dans l'univers est aussi dans le sacrifice. Les unités de temps s'y retrouvent aussi et, plus encore, on les considère comme ayant une existence réelle: le concept de l'imaginaire a été inséré dans la trame du concret.

Les relations occultes entre les idées et les choses, les noms (*nāma*) et les formes (*rūpa*) composaient dans leur ensemble une vie mystique. Elle est exposée avec beaucoup de détails dans les livres de Śāṇḍilya du Śatapatha Br., mais avec des détails si incohérents qu'il n'est pas aisé d'en construire un système. L'un pourtant est commun à tous les docteurs brahmaniques: ils insistent sur l'image rituelle des phénomènes. Les divisions de temps possèdent de ce fait leur contrepartie rituelle, et chaque moment du rite a son reflet dans le monde de choses ou d'idées.

Les saisons, *ṛtu*, occupent une place prépondérante dans cette symbolique. Le plus souvent elles sont six au nombre. Ainsi dans le sacrifice Vājapeya – course de chars et de chevaux – on prononce six *kḷpti* ou formules de prospérité « parce qu'il y a six saisons qui font l'année ». Cette phrase est répétée chaque fois que la quantité de six intervient dans les manipulations rituelles. Elle alterne avec d'autres phrases types: « c'est parce qu'il y a cinq saisons . . . » ou « c'est qu'il y a quatre saisons . . . » ou même: « . . . sept . . . ». Tout selon le nombre des actes accomplis ou des hymnes chantés, car il est nécessaire de prouver l'étroite relation entre le sacrifice et l'univers des phénomènes.

Sur quoi cette relation est-elle fondée? Inutile de le chercher. Le peu de témoignages ne nous permettent pas de saisir toute la pensée de ce temps-là. Il suffit de dire que des mètres, des mélodies (*sāman*), des formules de prières, des briques d'autel etc. etc., chaque catégorie prise à un moment donné et examinée sous un certain angle peut représenter les saisons qui, à leur tour, représentent les castes etc. etc. Or dans les textes exégétiques « figurer » voulait dire « être ». Dès qu'on découvrait des caractères tant soit peu semblables dans les objets, on en faisait un principe de classification. De là on passait rapidement au degré suivant; de l'alignement on passait à l'identification. Rien n'empêchait de mettre en série des objets concrets ensemble avec des idées abstraites. On posait ainsi des équivalences: la région de l'est – le mètre gāyatrī (ou « la gāyatrī l'ailée ») – le sāman rathantara – le triple stoma (chant élogieux) – le printemps – la caste de brahmane; ou bien: la région du sud – triṣṭubh – bṛhatsāman – l'été – la caste de Kṣatrya, l'hiver et la saison fraîche – la splendeur brahmanique et la connaissance. Rarement arrive-t-on à saisir la véritable relation entre les choses que l'on « gagne » par telle formule ou tel geste. Elle n'est un peu transparente que dans les rites qui sont manifestement d'origine non brahmanique. Lorsque, à la consécration d'un nouveau roi, celui-ci fait un large geste de bras et prononce une formule par laquelle il « gagne » les six points cardinaux et les six saisons, on devine sans peine qu'il se proclame maître de la terre et de tout ce qu'elle peut lui offrir; on ne s'étonne pas de lire: les *diśaḥ*, régions, sont les *ṛtavaḥ*, saisons. Mais tels passages ne sont pas fréquents.

A la base de toute science du rituel on posait la relation occulte entre les unités de temps et les moments du processus sacré. Le sacrifiant qui la connaissait en obtenait la souveraineté et l'assurait pour le sacrificateur. Mais la seule réalité étant le sacrifice, on accordait tout avec lui, et, le raisonnement ayant été ainsi tiré par les cheveux, on s'exclamait: *etā́m abhisampádaṃ sampadyante*, ŚB. IX, 1, 1, 26, « et voici on obtient leur accord ». 360 briques mises en rang pour la construction de l'autel figuraient (= « étaient ») les jours de l'année; 720 en « étaient » les jours et les nuits. Tout le calendrier indien, avec ses 12 mois, le treizième mois intercalé, avec le nombre variable des saisons, avec les divisions du jour, tout s'y retrouve. C'est en construisant l'autel sur l'indication de Prajāpati et en tenant compte de la symbolique du temps dans ses sections que les dieux sont devenus immortels. Les hommes veulent atteindre au moins une immortalité relative, c'est-à-dire une longue vie, *pūrṇā́yuḥ*. Mais les jours et les nuits, en s'écoulant, détruisent cette immortalité, fruit de bonnes actions, dit le texte (*ahorātré ha vā́ amúṣmiṃl loké pariplávamāne púruṣasya sukṛtáṃ kṣiṇutaḥ*, ŚB. II,

3, 3, 11). Ils ne la détruisent pas pour celui « qui connaît ainsi ». Celui-là « gagne sans danger l'autre bord de l'année » – année, révolution des phénomènes, vie et mort. – Pareil au voyageur debout sur le char, il regarde d'en haut tourner les roues – jours et nuits. Il comprend l'instabilité de tout et l'inexistence du temps en dehors du mouvement des choses.

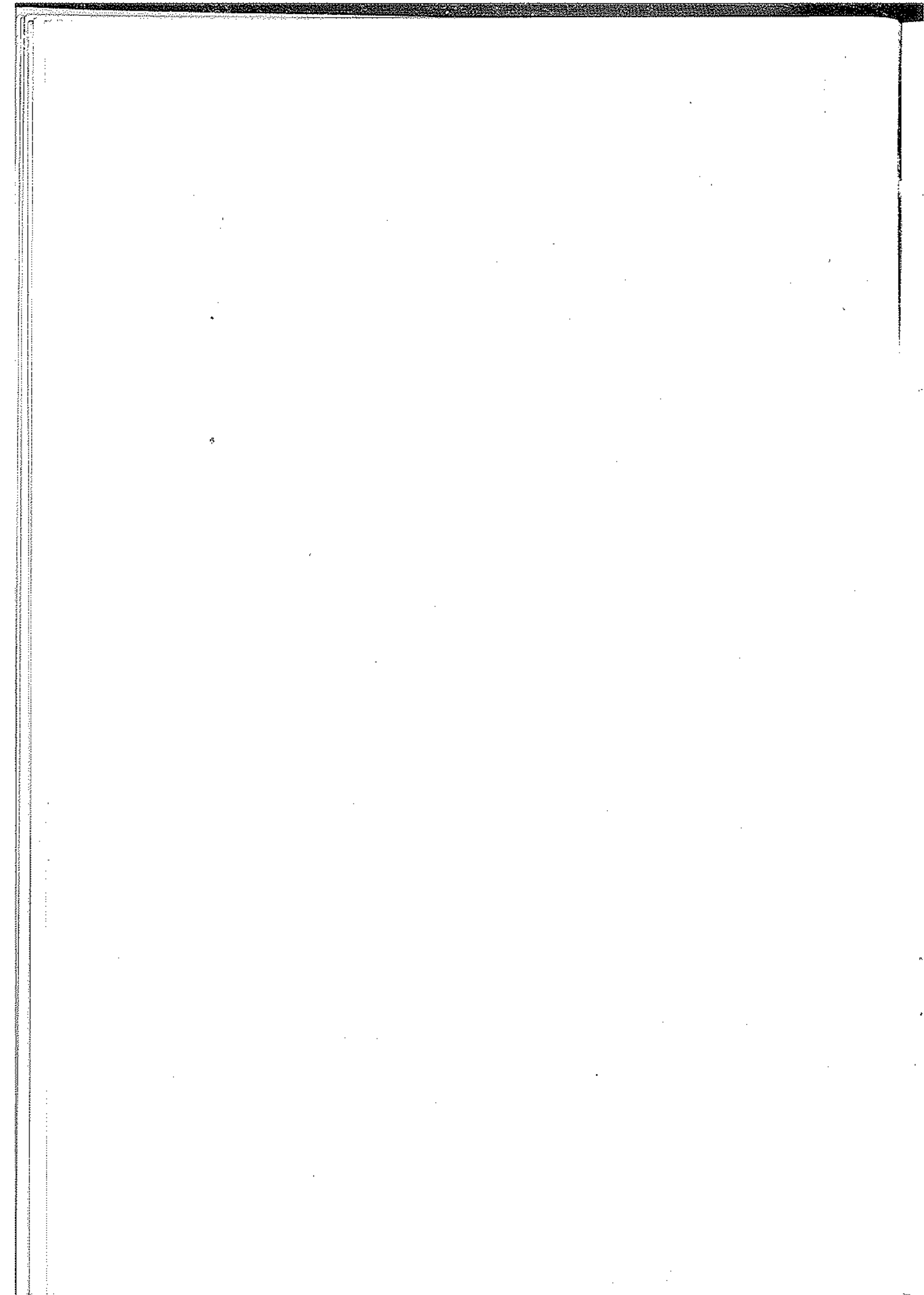
Les saisons ont eu un commencement, elles ont été créées (Vāj. S. XIV, 28 ss.). D'abord multiples (ŚB. VIII, 7, 1, 3-4), elles se sont unies « pour procréer ». Mais la trace de l'ancien état n'est pas toute effacée: il se trouve dans chaque saison qlq. ch. qui la relie aux autres. Ici l'observation immédiate se joint à la spéculation. De vieux rites agraires se mêlent au rituel brahmanique. Les divisions de temps s'identifient avec les dieux et les mânes, avec ce qui vit puissamment et avec ce qui n'a qu'une vie latente. Elles sont les étalons, font naître les créations (ŚB. VII, 4, 2, 31; II, 4, 4, 22); ce sont elles, le printemps, l'été et la saison de pluie (ŚB. II, 6, 1, 2), qui ont tué Vṛtra, le démon de la sécheresse. Elles ont les deux traits du temps indéfini et illimité: la force génératrice et la force destructrice à l'égard de ce qui a vécu sa limite. Le mystère de la vie et de la mort se trouve indiqué par la succession des saisons.

L'année est leur maître. « Taureau des saisons » (*vṛṣan*, ŚB. XIII, 1, 22), l'année est établie en elles et existe de leur existence (VI, 7, 1, 18), ne doit sa continuité à rien d'autre (VII, 7, 1, 3). Ce sont les saisons qui rattachent l'année à la lune (VI, 7, 1, 19), cf. le rapport entre la position relative des corps célestes et la révolution de l'année.

La théorie de ce qu'est l'année au point de vue numérique, pratique et rituel est disposée dans plusieurs écrits. Le 4[me] adhyāya du VIII[e] kāṇḍa du ŚB. en contient pourtant la plus grande quantité de traits et, de ce fait, c'est le document le plus important pour étudier la notion brahmanique de temps. L'année, dit le texte ŚB. VIII, 4, 1, 18, est la matrice de toute chose et au même moment elle s'attaque victorieusement à tout être, ibid. vers 15. Les créatures ont en elle leur origine et le champ de leur évolution, VIII, 4, 1, 22: 25 etc., mais elle les « brûle » aussi, ibid. 14. Elle est la génération et la destruction, elle est le Temps, l'éternelle révolution.

Au delà de l'année se trouve le monde de désirs réalisés, le texte dit accordés ». Les désirs réalisés c'est l'absence de désir, l'absence de mouvement, par conséquent l'absence de changement, donc la négation de la vie. Ainsi en dehors du temps défini et limité, temps mouvement-vie, il y a le temps absolu, la non-vie qui ne se rencontre pas dans les données de notre expérience, celle-ci étant bornée à constater la succession des phénomènes se déroulant et mourant devant nos yeux.

L'année créatrice, le temps générateur c'est aussi Prajāpati, le Père-Créateur, dieu des Brāhmaṇas, de cette période spéculative qui a remplacé les Védas. Mais la création implique aussi la notion de la fin de l'être créé. Puisque Prajāpati fait naître les créatures, il les fait aussi mourir. Prajāpati, dieu principal, dieu par excellence, est aussi la mort, *mṛtyu*. Et l'on finit par poser l'équation: l'année – Prajāpati = création; l'année – Prajāpati – la mort = le Temps, condition intégrale de la vie.



Time and Eternity in Hinduism and Buddhism

A.K. Coomarswamy

I

HINDUISM

In ŚĀ. 7, cf. AĀ. 2. 3. 5ff., a series of progenitive triads is expounded on the analogy of grammatical crasis. *Saṁdhi*, the crasis of prior and posterior forms [e. g. as Sāyaṇa says, of $a+i$], really neither confuses nor splits them apart. To pronounce in Nirbhuja fashion without distinction [as *e*] is appropriate for one who desires only food, earth (this world); to pronounce them in Pratṛṇṇa fashion separately [as *aī*] is appropriate for one who desires only the sky (yonder world); to pronounce them in Ubhayamantareṇa fashion, i. e. in the intervenient Middle Way [as *ai*, diphthong], includes both and is appropriate for one who desires both worlds, and so "the mora that declares the crasis is their harmony (*sāman*)[1], combination or union (*saṁhitā*)".

In general, the "prior form" is the mother, the "posterior form" the father, their combination or union (*saṁhitā*) the child. Analogous triads are, *in divinis*, Earth and Sky, parents of the Gale or Lightning or Time (*kāla*): or subjectively, within you, Voice and

[1] Evidently to be taken here in the sense of the hermeneia *sāman* = *sā* + *ama* "she and he", as in AB. 3. 23, JUB. 1. 53 ;, and CU. 6. 1 and 7, cf. my *Spiritual Authority and Tem-o al Power* ..., 51ff.

Mind, parents of the Breath, or Truth, or Knowledge, or Self; and Prescience[2] and Faith, parents of Sacrificial-Action (*karma*)[3]. But the most significant from the present point of view is the further triad, procession (*gati* = *pravṛtti*) and recession (*nivṛtti*), parents of stasis (*sthiti*). All measures of time, from *dhvaṁsi*'s up to Years, are united in this union (*saṁhitā*), that of the Stasis,—"it unites these times" (*kālān saṁdadhāti*). The text goes on: "Time (*kāla*) unites procession, recession, and stasis, and by these All This (world, or universe) is united"[4]. That is, *in divinis*. Subjectively, psychologically, "the past (*bhūtam*) is the prior and the future (*bhavyam*) the posterior form, and the present (*bhavat*)[5] is their union (*saṁhitā*), or product". In illustration of this, the Āraṇyaka quotes RV. 10. 55. 2, "Great is that hidden Name, and far extending, whereby thou madest past[6] and Future (*bhūtam ... bhavyam*)"

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[2] *Prajñā*: Keith's mistaken and unintelligible "offspring" merely reflects the misprint *prajā* in his own edition of the text, *Aitareya Āraṇyaka*, 1909, 210.

[3] Cf. ŚB. 11. 3. 1; and AB. 7. 10 where the sacrificer represents Truth, and his wife, Faith.

[4] Essentially, this is the doctrine attributed by Rāmānuja to the Jains: " 'Time' is a particular atomic substance which is the cause of the current distinction of past, present, and future" (in comment on BrS 2. 2. 31, SBE XLVIII, 516).

[5] Note that *bhavat*, as an honorific, is also "Presence", as, e.g. Milton, "Sov'ran Presence", and cf. the doctrine of "Total Presence".

[6] Keith's "present" is an obvious slip, as he has, rightly, "past", for *bhūtam*, above.

After "hidden Name" might have been added AĀ. 2. 3. 8. 4 *yasmin nāmā ... tasmin devāḥ sarvayujo bhavanti* and AV. 10.

and might have cited AV. 19.53.5 and 54.3: "Sent forth by Time (*kāla*), what hath been and shall be

7. 22 [skambha = brahma] *yatrādityās rudrāś-ca vasavaś-ca* [the *prāṇāḥ* of CU. 3. 16, elsewhere often = *devāḥ*] *samāhitāḥ*.

It may be worth noting in the present context that "the original sense of the perfect was not distinguished from the present in point of time but denotes a state" and that this "oldest sense is common in the Ṛgveda ... ['past'] participles which express a completed action whose results persist into the present", Keith, *Aitareya Āraṇyaka,* 1909, p. 211, n. 8 and 247, n. 1. Examples of participles are "the originally timeless force of the form *kṛtya*" (*ib.* p. 179, n. 1, cf. Whitney, *Sanskrit Grammar* 889, 894); and in RV. 1. 81. 5 *jāto,* "not impf. 'was born' or aor. 'has just been born' but 'exists, having been born'", and BD. 8. 47 *stutāḥ,* not "were praised" but "are praised". Something of the same sort can also be recognized in that kind of ancient art in which successive events of what is verbally expressed by narrative are represented as if occurring simultaneously, in one and the same frame. Again, in Genesis, no time interval can be inferred as between "Let there be light" and "There was light", which is also the light that is now. The common Buddhist expression *yathā bhūtam,* "as become", used with reference to things "as they really *are*" implies the ripening of past causation in present effect. Some scholars assume that such forms as *he may, he can,* "are survivals of a primitive atemporal era, when 'preterites' were used indifferently for the present" (G. Bonfante in *Word* I, 1945, p. 148). "To the Hopi, time is not cut up into segments which can be measured, like an hour, a day, or a year, but it is rather conceived as a duration, in which the Law is being fulfilled" (Laura Thompson, "Logico-aesthetic Integration in Hopi Culture", *American Anthropologist* 47, 1945, p. 542): "Once we have rid our minds of the idea of parts of Time ... all the notes are held together by the uninterrupted succession which in this case is the tune" (F. H. Brabant, Time and Eternity in Christian Thought, 1937, p. 177). As I have often remarked, the "long

stand apart ... Time hath engendered what hath been and shall be", and KU. 4. 13 "Lord of what hath been and shall be, He is both today and tomorrow", and AV. 10. 7. 22: "Wherein what hath been and shall be, and all worlds are instant (*prati-tiṣṭhatā*), tell me thou of that Pillar (*skambha,* Axis Mundi), what it may be".

Note, above (1), that Time is on a par with Lightning and (2) the words, "Time unites procession, recession, and stasis" (*kālo gatinivṛtti-sthitiḥ saṁdadhāti,* ŚĀ. 7. 20). This last can only mean that here Time (as in AV. 19. 53 where Time is the *source* of past and present, and so cannot be identified with either one or both of these durations) is a static *point*, that of the Stasis in which the two contrary motions *momentarily* coincide, but which otherwise separates them. The root in *sthiti* is *sthā*, to "stand", "exist", "be in a given state", implying stability, and contrasting with *gam,* or *car, cal,* to "go" or "move", implying instability: "what goes" and "what stands" together making up the whole of the existence of which the Sun is the Self (RV. 1. 115. 1). The contrast of "standing" with "going" may be noted in Mbh. 13.96. 6 where the Sun

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ago" or "once upon a time" with which our fairytales *begin* are really timeless expressions (cf. Hebrew *olam*, rendered by Gk *αἰών*): and a remarkable illustration of this can be cited in the fact that the Indian fable so often begins with *asti*, "There *is*", for example, the first story in the *Pañcatantra,* beginning *asti kasmin-cit pradeśe nagaram,* "There is a city in a certain land",—a statement that is not specific as to time or place. The myth is *really ἀεὶ γὰρ ἐν ἀρχῇ*.

"stands at mid-day for half a twinkling of an eye" (in Jamadagni's words, addressed to the Sun, *madhyāhne vai nimeṣārdhaṁ tiṣṭhasi*); that is not, of course, to be thought of as a measurable period of time. For even for those who thought of the sun as daily ascending and descending, a real pause in the Zenith was always miraculous [7], and neither does the revolution of the earth, which makes the sun seem to rise and decline, ever stop [8].

[7] As in J. I. 58 where the sun stands still above the Bodhisatta for so long as he is plunged in *jhāna,* but still moves for others, and this is expressly a *pāṭihārya;* and Joshua 10. 13 "the sun stood still in the midst of heaven".

[8] Consider a stone, thrown into the air vertically; how long does it "hang" in the air before it begins to fall again? The answer to this depends upon the fact that the vertical projection of a missile, which first rises and then falls, is only the limiting case of a course that is really curved. When a missile is projected not merely upwards but at the same time forwards, it also rises first and then falls; but its course is an unbroken curve, and we do not even imagine that it stops or hangs for however short a time at the highest point of the curve; and in the same way in the case of vertical projection there is no actual time, however short, during which it "hangs", but only a point without duration in which the upward and downward motions, past and future, *meet.*

The problem is fully dealt with by Aristotle (*Phys.* 8. 8. 262 A), who shows that when the direction of motion of a continuously moving object is reversed we cannot properly say that the object "has reached" or "has left" the point at which the reversal takes place, "but only that it 'is there *at* an instantaneous 'now' (εἶναι ἐν τῷ νῦν) and not *in* any space or period of time at all" (Wicksteed and Cornford's rendering). The point at which the reversal takes place is no more an actual stopping place than are any of the other of the indefinitely numerous

On the other hand, as in the case of the miracles cited [7], so in that of the Comprehensor, the Sun [9] "having risen in the Zenith, will no more rise nor set, but will stand (*sthātṛ*) in the middle ... For the Comprehensor of this Brahmopaniṣad, it is once-and-for-all (*sakṛt*) day" (CU. 3. 11. 1, 3) [10]. And, also, with reference to Brahma, "there is this indication: *in divinis,* That in the Lightning that flashes forth and makes one blink (*nyamīmiṣat*); and within you, That which, as it were, comes to the mind, and by which one instantly (*abhikṣṇam*) [11] remembers,—that concept (*saṁkalpa*)"

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points on the way, in each of which the object *might* have stopped but did not.

To avoid any possible confusion, it should be realised that the final "coming to rest" of the object on the ground is not a "stasis", but only a condition of relative immobility for some period of time beginning from the terminus of the particular kind of motion first considered; though this does not arise in connection with the sun or earth, of which the motion is continuously of the same kind. In any case, "all rest is in time" (*Phys.* 4. 14, 221 B).

[9] Here the "intelligible Sun",—"not the sun whom all men see, but the Sun whom not all know with the mind", AV 10. 8. 14, i. e. Apollo as distinguished from Helios, Plutarch, *Moralia* 393 D, "the Sun of the Angels" as distinguished from "the sun of sense", Dante, *Paradiso* 10. 53, 54, Philo's "Sun of the sun", *Spec.* 1. 279.

[10] "Thy sun shall nevermore go down", Isaiah 60. 20; "There all is one day, series has no place; no yesterday, no tomorrow", Plotinus, *Enneads* 4. 4. 7; "the eternal day which neither dawns nor sets", St. Augustine *In Ps. CXXXVIII.* Many other parallels could be cited, e.g. ŚB. 12. 2. 2. 23, and St. Augustine, *Conf.* XI. 13. 16.

[11] *Abhikṣṇam* = *abhi* (intensive) + *kṣaṇam,* see *JAOS.* 24.

(Kena Up. 4. 4, 5): on which Deussen comments, "Das zeitlose Brahman hat sein Symbol in der Natur an dem momentanen Blitze, in der Seele an dem momentanen Vorstellungsbilde" (*Sechzig Upanishad's des Vedas*, 1907, 208)[12].

11, note: or perhaps better, *abhi* + an obsolete *ikṣṇam*. Cf. *kṣaṇa-dyuti* and *nimeṣa-kṛt* = "lightning": and in the *Sāhitya Darpaṇa* 3. 3 *lokuttara-camatkāra-prāṇa*, with reference to the "tasting of Brahma". *Kṣaṇa* should also be noted as "leisure" and "festival", cf. Lat. *mora:* and also *kṣaṇa* as "op*port*unity", i.e. *gate*way. In some uses, *ikṣ*, to "see", "eye", is precisely to "consider", in the primary sense of this word.

[12] Lightning is the standard symbol of divine manifestation, revelation and illumination, a brilliance "like lightning in that it lights up the whole body at once", MU. VII. 11; "in the Lightning, Truth", Kauṣ. Up. 4. 2. "The Person in the Lightning is the Breath, the Harmony (*sāman*), Brahma, the Immortal; as it were a sudden (*sakṛt*) flash of lightning, and even such is his splendor who is a Comprehensor thereof" (JUB. 1. 26. 8 + BU. 2. 3. 6). *Sakṛt* is "one-making", "once", "but once" (Macdonell, *Vedic Grammar* 306, 409, Keith, *Sanskrit Literature* 229): the opposite of *asakṛt*, "recurrent", MU. 2. 4.

"Suddenly a light, as if from a leaping fire, will be enkindled in the soul", Plato, *Ep.* 7; "the principle of knowledge, that is conceptual, pure, and simple, flashes through the soul like lightning and offers itself in a single moment's experience to apprehension and vision", Plutarch, *De Iside* c. 77; "the moment of (supreme) illumination is short-lived, and passes like a flash of lightning" (Eckhart, Evans. ed. I. 55); "suddenly there shone from heaven a great light", Acts 22. 6; "the Lord spake suddenly unto Moses", Numbers 12. 4. For the *Abhisamayālaṅkāra*, when the End of the Road has been reached, the Full Awakening (*abhisambodhi*) of a Buddha is "single-instantaneous" (*eka-kṣaṇa-*), see E. Obermiller in *Acta Orientalia* 11. 81, 82, and Index, s. v. Cf. Zen *satori*. The event is truly "momentous". Many other parallels could be cited.

In AV. 19. 53 and 54, cited above, "Time"—absolutely—is the source of all relative times; not itself a duration, but rather the Timeless, Eternity, to which all moveable time is ever present. It is in these terms that the Maitri Upaniṣad distinguishes the "two forms" (*dve rūpe*) of Brahman, i.e. aspects of the two natures (*dvaitibhāva*)[13] of the single essence (*tad ekam*), as "time and the Timeless (*kālaś-cākālaś-ca)*: "From one who worships, thinking 'Time is Brahma' (*kālam brahmeti*), time (*kāla*, also death)[14] reflows afar. As it has been said:

> From Time flow forth all beings,
> From Time advance to their full growth,
> And in Time, again, win home,—
> 'Time' is the formed (*mūrti*) and formless, both.

There are, indeed, two forms of Brahma; time, and the Timeless. That which is prior to the sun is the Timeless (*akāla*) and partless (*akala*); but that which begins with the sun is the time that has parts (*sakala*), and its form is that of the Year ... Prajāpati ... Self[15]. As it has been said:

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[13] MU. 7. 11. 8; cf. BU. 2. 3, MU. 6. 22 etc.

[14] "Day and night are death, but they do not affect the divinity Āditya (Sol invictus), for they are only the occasion of his rising and setting" (*Vādhula Sūtra*), but really "he never rises nor sets" (AB. 3. 44), "for the Comprehensor it is evermore high noon" (CU. 3. 2. 3).

[15] The solar Self (*ātman*), transcendent and immanent, "is called time (*kāla*), who devours all existences (*bhūtāni*) as his food" (Maitri Up. 6. 2); it is from this all-devouring solar time or death that the concept of a timeless Time is a deliverance. Cf. Claudian, *Stilicho* 2. 427-430.

> The time (that has parts) cooks (*pacati*, matures) all things,
> In the Great Self, indeed;
> But the Comprehensor of That (Time without parts) in which time itself
> Is cooked, *he* knows the Vedas!

This extended (*vigraha*, specific, hypostasised) time is the regal-river of begotten beings ... (the ultimate source) of All This here, and of whatever fair or foul there is to be seen in the world" (MU. 6. 14—16)[16].

"Other than 'has been' and 'shall be', without beginning or end, Lord of what has been and shall be, He alone is today and tomorrow" (KU. 2. 14, 3. 15, 4. 13). He, then, "who is partless, the constant amongst the inconstant, the One of the many, all-maker, all-knower, immortal, omnipresent (*nityo nityānām ... eko bahūnām ... viśvakṛd viśvavit ... amṛta ... sarvago ... niṣkalam*) is the "creator of time" (*kālakālaḥ, kālakāraḥ*, Śvet. Up. 6. 13—19): "at the command (*ājñā*, as a verb, primarily to know, hence to exercise authority) of that Imperishable (*akṣara*, also "Word", Logos) the moments (*nimeṣā*), hours, days, ... and years exist apart"

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[16] The formless and undivided Time of MU. corresponds to the absolute Time that "unites procession, recession, and stasis" (ŚĀ. 7. 20 cited above), i.e. past, future and present, and to Śaṅkara's "impartite Time" (*niṣkala kāla*) of which the aeons, years, seasons and all other "times" are only "imagined" arrangements (*kalpita, Vivekacūḍāmaṇi* 497). In other words, all duration is an articulate form imposed by our own thinking on a Reality to which all such articulation is foreign.

(*vidhṛtās tiṣṭhanti*, BU. 3.8.9). And such is what William Morris rightly calls "the entering in of time from the halls of the outer heaven".

For the *Yoga Sūtra Bhāṣya* 3.52, a moment (*kṣaṇa*) is the "ultimate minimum of time, and cannot be further divided up ... and the continuous flow of such moments is their 'course' (*krama*) ... Their uninterrupted course is what is called 'time' ... The whole world passes through a mutation in any one moment; so all the external qualities of the world are relative to this present moment". The control of the moments and their sequence leads to a discriminative gnosis, of which the final development (*ibid.* 54), "the Deliverer" (*tāraka*), "has all things for its object, and all times, without-regard-to-their-course (*akrama*) as its object". It will be seen that this is the same procedure that is described in the Buddhist *Kālacakratantra* cited below; it reminds us also of Meister Eckhart's saying, "Not till the soul knows all that there is to be known, can she pass over to the unknown good".

Finally, for the Vedanta, the reality or actuality of things is only momentary; it is folly to say of the world that it "is"[17]; and "neither is 'I' a substance, since 'it' can only be seen for an instant (*kṣaṇikatvadarśanāt*); how can the words 'I am omniscient'[18] hold good for the I, etc. that exists for a moment only?" *(aham-*

[17] "How can that which is never in the same state *be* anything?" (*Cratylus* 439 E).

[18] "The Self knows everything", MU. 6.7. This could not be said of the inconstant, empirical self or "I".

ādeḥ kṣaṇikasya, Vivekacūḍāmaṇi 230, 293). In view of this it is difficult to follow Śaṅkara's polemic in BrSBh. 2. 2. 20 directed against the Buddhist doctrine of "instant dissolution" (*kṣaṇika-bhanga-vāda*)[19]. Śaṅkara rejects the Buddhist doctrine on the ground that it is incompatible with the operation of causality[20]; but that is an objection that would only hold good if the doctrine had been one of a discontinuous time made up of successive instants; whereas the Buddhist doctrine is that the stream of existence is incessant (*na ramati,* A. 3. 147), and carries along with it the momentum (or potential) engendered by all that has taken place in the past, and that the "individuality", however incons-

[19] For the Buddhist doctrine in detail see the following chapter.

[20] It seems to be from exactly the same point of view (involving a misunderstanding of the traditional doctrine) that the notion of the "instantaneous present" is rejected in "modern" theories of time; for example, by Whitehead (*The Concept of Nature,* p. 73) who insists that "past and future meet and mingle in an *ill-defined* present" [i.e. in what Buddhaghosa calls the "extended moment" (*santati-khaṇa*)]. This is to ignore that any such "ill-defined" present must consist of two parts always "with a narrow ledge of definite instantaneous present" determining them, but without interrupting their continuity because it has no duration and is not in time.

It is not in the instantaneous present, but in time and space, that causality *operates;* and it cannot be too strongly insisted that in the traditional doctrine everywhere time and space are uninterrupted continuities, and that were it otherwise the hare would never succeed in passing the tortoise. It is only when time is thought of as *dis*continuous that the operation of causality becomes unthinkable.

tant, is always the heir of past actions of which the effects mature in due course, whether sooner or later[21].

[21] This "sooner or later" is essential to a proper understanding of the concepts of "gradation" and "evolution". The traditional idea of "evolution" is "emergent". Accordingly for St. Augustine "the world is pregnant with the causes of things as yet unborn", "so that at this time or that, and in this or that way, the thing created may *emerge* ... break out and be outwardly created in some way by the *unfolding* of their proper measures" (*De Trin.* 3. 9. 16); a thing or species is eternal in the Word of God "in which there is no then and sometime", but it "comes into being at that time 'when it ought to come into being'" (*De gen. ad litt.* 1. 2. 6); and "as in the seed there are invisibly and at one time all the things which in course of time will grow into a tree, so the universe must be conceived" and in this way those things which are producted by the operation of physical causes existed potentially (i.e. as possibilities) "before in the course of time they [actually] came into being in the shape in which they are now known to us in those works which 'God worketh until now', John 5. 17" (*ib.* 5. 23. 45). In other words, their preexistence as possibilities is what is meant by "gradation", while their emergence in the course of time is their "unfolding" or "evolution". The doctrine of "seminal reasons" is not unlike the theory of "genes" by which we now interpret "heredity". Further, analogous to this phylogeny is the ontogeny of individual organisms. Just as the pure Intellect embraces the ideas of many things in simultaneous identity with itself, as species are included in a genus, "so it is with the powers (δυνάμεις) in seeds (each with its corresponding matter, such as moisture); not distinguishable in the whole, the formactive-principles (λόγοι) are, as it were, all present at one point (ἐν ἑνὶ κέντρῳ). And there already are the formative-principles of the hand and the eye, which will be separately known when they come into being together with their sensible matter... This some call the 'nature in the seed' ... which, coming out

Again, the Vedantist Cakrapāṇi, commenting on the *Caraka-saṁhitā* (1. 1. 55, 1. 8. 11, 141. 1) [22] admits that cognitions are momentary (*kṣaṇika*) but, he says "not as in the Buddhist scriptures 'lasting for a moment only'" (*eka-kṣaṇavasthāyinyaḥ*); for there is also a continuity (*saṁtāna*) because of which the experiencing Self [23] is called a Unity (*ekatayā ucyate*); and this Self is eternal, though the rise of consciousness in it is occasional; constant, or eternal, "because of the concurrence of its own past and future intuition" (*nityatvam cātmanaḥ pūrvaparāvasthānubhūt ārtha-pratisaṁdhanāt*) [24]. But the opposition is unreal, because the

like light from fire, and not mechanically as so many have said, moulds the matter by bestowing upon it the formative-principles... Given the formative principle, and the matter that can receive that seminal reason (λόγος σπερματικός), the living thing itself must come into being" (Plotinus, *Enneads* 5. 9. 6 and 10). "Sicut autem in ipso grano invisibiliter erant omnia simul quae per tempora in arborem surgerent", St. Th. Aquinas, *De gen. ad litt.* 5. 23. 45).

The Indian texts are rather less detailed; but it is very much in the same way that Uddālaka, taking for granted that "the Self (Spirit") knows everything" (Maitri Up. 6. 7), expounds the nature of the Self to his son by comparing it to the infinitesimal germ that you cannot see in the seed, but will become such a great banyan tree as you see yonder (Chāndogya Up. 6. 12, cf. Manu 1. 56).

[22] See in Das Gupta, *History of Indian Philosophy* 2. 367, 368.

[23] "Experient immanent Person" (*bhoktā puruṣo'ntasthaḥ*, Maitri Up. 6. 10); "whom the wise call the experient" (*bhoktety āhur manīṣiṇaḥ*, Kaṭha Up. 3. 4); "the Lord, the experient" (*bhoktā mahe'svaraḥ, Bhagavad Gītā* 13. 22).

[24] All experiences or intuitions being ever present to the "one

Buddhist predication of a merely "single-moment-enduring" experience is to the transient self that is "not my Self", while the Vedantist continuity and unity is that of the true experient, at once my Self and the Self of all beings. The whole, or almost the whole basis of the Vedantist critique of Buddhism seems to rest upon the erroneous supposition that in Buddhism both the transient *and* the real selves are denied; whereas, it is clear enough from the canonical Buddhist scriptures that while the Buddha denied the reality of the transient self (of which he allowed a postulation only for everyday purposes), it can have been only of the Self—"the Lord of the self", Dh. 160, 380—that he is speaking when he "takes refuge" in it himself, and recommends others to do the same.

Reference must also be made to the Indian "atomism". The word *aṇu*, often synonymous with *sūkṣma*, "subtle" or "acute" (cf. *sūcī*, "needle"), is not literally "atom", but does mean "indivisible particle or principle", so that *aṇu*, or *paramāṇu* and *aṇutva*, are

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and only transmigrant, ... the Lord", Praśna Up. 4. 5, etc.: see my "Recollection, Indian and Platonic", Supplement No. 3 to *JAOS*, 1944.

Cakrapāṇi's formula, explaining the meaning of *nityatvam*, is an admirably concise enunciation of the doctrine that eternity is that Now to which the past and future are ever *present*. Note that *nitya* (√*ni*, Gk. ἐ-νί, "in") has also the primary meanings of "*in*nate" "native", "own"; cf. *ni-ja*, "innate", "own", and *ni-vid*, "Vorschrift", "canon", "code". Hence one might render Cakrapāṇi's formula more freely: "The intrinsic nature of the Self is its present contemporaneity with whatever has been or will be".

the real equivalents of "atom" and "atomicity", and may be translated accordingly; the related *āṇi* is the sharp "point" of anything, such as an axle or needle; and I render *aṇiman* by "minimum", though in some contexts it stands rather for the *power* to assume the "minimum" form (which is really that of the "thread-spirit", *sūtrātman*), in which alone it becomes a possibility to pass through "solid matter" or wherever there is no dimension through which to pass. Furthermore, and just as *ἄτομος* can be used of either spatial or temporal minima, so the reference of *aṇu* may be either to a "point" of space, without dimension, or to a "point" of time, without duration.

"Atomism" is primarily associated with the Vaiśeṣika position (*darśaṇa*), which takes its name from the fact that the material atoms are regarded as having each its own "particular" (*viśeṣa*) eternal quality or substance. Kaṇāda's[25] avowed purpose in the *Vaiśeṣika Sūtras,* regarded by Das Gupta as pre-Buddhist, is to explain Dharma (Eternal Law) as the ground on the one hand of eventuation (*abhyudaya*) and on the other of the

[25] "Atom-eater", from *kaṇa,* minutium, mote, drop, atom etc., related to *kana* as used for *alpa* in comparative and superlative forms, and present in such words as *kanyā,* young or virgin girl, and *kanīnaka,* pupil of the eye, cf. Ir. *cain,* undefiled. The contents of the Sūtras is conveniently summarised by Das Gupta, *History of Indian Philosophy* I, ch. 8; but Das Gupta's own comments must be read with some reservations, e.g. where he says that for Kaṇāda Time is the ultimate cause and for this idea elsewhere refers only to Śvet. Up. 1. 1. 2, ignoring on the one hand MU. and on the other RV. 10. 55. 2 and the AV. and ŚĀ. references cited above.

Summum Bonum (*niḥśreyasam*), i.e. Liberation [26]; the validity of the Vedas is established by the fact that such are their results. Time is the cause of temporalia, but absent from eternal things. "Self" is not an inference drawn from behaviour, but directly known in the experience "I" [27]; it is one in all, but seems to be many because of the particular limitations of the things in which it is manifested [28]. Nonexistence (*asat*) is the absence of activity and quality; the four types are recognized, prior (potentiality of existence), posterior (no longer in existence), mutually exclusive (definitive, "this is a jar" implying "is not a cloth"), and absolute (antinomial, like "the horns of a hare"). Causality (*hetu*) is relation; but cause and effect have no independent existence, and because of this *yutasiddhy-abhāva* need not be thought of as either "connected" or "dis-

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[26] Thus, as in Buddhism, both temporal and eternal, in the world and not of it. "The characteristic of the traditional solution of the space-time problem is that reality is both *in and out of* space, both *in and out of* time" (Wilbur Urban, *The Intelligible World*, p. 270).

[27] This is a proposition quite different from Descartes' Cogito ergo sum, where the argument is based on behaviour and leaves us still in an ego-centric predicament. Kaṇāda's "I" refers to what the author of the *Book of Privy Counselling* calls "the naked blind feeling of thine own being . . . not clad with any quality of thy being".

[28] Thus both one and many, as in ŚB. 10. 5. 2. 16; one really, and many only logically, as for the Vedānta, passim. Plato's "nature that assumes all bodies" (*Timaeus* 50 A, B); Rūmī's "one single soul that is nominally manifold in relation to bodies" (*Mathnawī*, 4. 414-8).

junct"; all production "depends on the operation of unseen causality" (*adṛṣṭakārika*), and where there is no such causal operation, there is Liberation. An atom is "an everlasting uncaused existence" (*sad akāraṇaṁ, nityam,* VS. 4. 1); the atoms themselves are spherical; atomicity (*aṇutva*) and magnitude (*mahattva*) are the basis of the concepts large and small; but both can be predicated of the same thing at the same time. Śaṁkara's rejection of the Vaiśeṣika doctrine of the elemental atoms in BrSBh. 2.2.11—17 consists essentially in a demonstration that constituent parts of things, however small, must be of some size, and can no more than aggregates be thought of as everlasting; this is undeniable, but even so would seem to leave the Vaiśeṣika system fundamentally valid if regarded strictly as a "point of view" (*darśana*), i.e. as an ontology in which the development of physical atoms is taken for granted and no attempt is made to go behind them. In any case, what must be avoided is any confusion of material "atoms" with the really atomic and partless time or space that is not a "part" of time or space in the way that material atoms are parts of things in time or space. Let us observe, in passing, that neither Sanskrit *aṇu*, "minute", nor Greek *ἄτομος*, "indivisible" (*acchedya*)[29], actually predicates an absolute lack of size. The "atoms" of modern science have been "split", and are no longer atomic, but composite, particles. We can now consider the true atomicity or homogeneity

[29] BG. 2. 24; *avibhaktaṁ ca bhūteṣu ... vibhakteṣu,* BG. 13. 16, 18. 20, cf. Clement of Alexandria *Stromata* 6. 4 "the Spirit of God indivisibly divided to all".

of the ultimate reality without further reference to Kaṇāda [30].

In RV. *aṇu* occurs only as an adjective, "fine", qualifying the "fingers" that prepare and qualify the Soma. But *āṇi* (*κέντρον*) as "axle-point" is significant in I. 35. 6 where "as upon the axle-point of the [cosmic] chariot stand fast the immortals" (*āṇiṁ na rathyam amṛtādhi tasthuḥ*) [31]: and since the "axle" here must be identified with the pneumatic Axis Mundi (RV. 10. 85. 12 *vyāno akṣaḥ*), its "point" corresponds to Dante's "punto dello stelo a cui la prima rota va dintorno ... da quel punto depende il cielo e tutta la natura" (*Paradiso* 13. 11 + 17. 17); and the proposition really answers the (perfectly intelligible) question, "How many angels can stand on the point of a needle?" Elsewhere *aṇu* stands for the "fine point" or "subtle essence" of anything, as in JUB. 3. 10. 3 where the Brāhman Kāṇḍviya is looked down upon because he "did not seek for what is atomic in the Sāman (*aṇu sāmnaḥ*), in which respect Prācīnaśāli surpassed him"; Kāṇḍviya had "missed the point". Atomicity and immensity are attributed simultaneously to the ultimate reality in

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[30] For an excellent and much fuller discussion of Indian atomism, see A. B. Keith, *Indian Logic and Atomism*, Oxford, 1921. The subject is very difficult, and in so far as the question is one of material (elemental) atomicity or particularity has no very important bearing on the doctrine of time and eternity. Keith considers it possible that the Indian theory may be partly of Greek origin, but has no decided view.

[31] *Āṇiṁ na rathyam ... adhi*, i.e. *arā iva rathanābhau saṁhatā ... yatra*, Muṇḍ. Up. 2. 2. 6.

which these two, and all, extremes meet; and this implies at the same time a total and omnipresence, and the coincidence in eternity of whatever is everlasting with whatever is now,—sicut erat in principio. "Less than the atoms (*aṇubhyo'ṇu*), in whom the worlds and their inhabitants are set, that is the imperishable Brahma, Truth (*satyam, τὸ ὄν*), Immortal ... At once immense and very subtle, that is this atomic Self" (*bṛhac-ca ... sūkṣmataram ... eṣo'ṇur ātmā,* Muṇḍ. Up. 2. 2. 2 + 3. 1. 7, 9)[32]. This Universal Self, when it inhabits any seed, is "of merely atomic measure" (*aṇumātrika,* Manu 1. 56); "that imperceptible minutium (*aṇiman*) that you cannot detect in the seed by dissection, but from which the whole tree grows, that intangible taste as of salt in water, *that* is the Truth (*satyam, τὸ ὄν*), *that* is Self (*ātman*), *that* art thou" (CU. 6. 12, 13): "When a mortal has torn away all that exists (*dharmyam*)[33] and hath obtained Him, the atomic (*aṇum etam āpya*), then is he glad" (KU. 2.13); "less than an atom, greater than immensity" (*aṇor aṇīyān, mahato mahīyān,* KU. 2. 20, Śvet. Up. 3. 20, cf. 5. 9); "less than a grain of rice ... greater than these

[32] On this cf. BrSBh. 2. 3. 19-29 on the *aṇutva* and *mahattva,* minuteness and immensity of the Self. The Yogi who makes himself a master of the elements can reduce himself to this minutium or attain magnitude at will (*Yoga Sūtra* 3. 45).

[33] *Dharmyam* here in its ontological, existential or sensational sense, with reference to "things" (as rightly maintained by Keith, *Religion and Philosophy of the Veda,* 1925, p. 547), and as in the Buddhist propositions, "all things are impermanent" (*sabbe dhammā aniccā,* S. 3. 132 etc.), „things originated causally" (*hetusampannā dhammā,* A. 3. 444).

worlds" (CU. 3. 14. 3); "indivisible, enduring, omnipresent, stable, immoveable, immutable" (*acchedyo*[34] ... *nityaḥ sarvagataḥ sthāṇur acalo* ... *avikāryaḥ*, BG. 2. 24, 25).

Such formulations are not at all peculiarly Indian: for example, Dionysius explains that "greatness is attributed in the Scriptures to God ... and Smallness, or Rarity" [= *aṇutva* or *sūkṣmatā*] respectively with reference to His transcendance and His immanence (*De div. nom.* 9. 1); and Philo's "the Spirit of God, atomic (τὸ ἄτμητον), indivisible, diffused in its fulness in and through all beings" (*Gig.* 28) is almost verbally identical with the passage cited from the *Bhagavad Gītā*.

If now the ultimate reality,—that Brahma, and Truth, that is the target of our aim (Muṇḍ. Up. 2. 2. 2)—is so minute, if the Janua Coeli[35] is so tiny as to be imperceptible to deluded men and visible only to those who have overcome anger and mastered the powers of the soul (*svargaṁ dvāraṁ susūkṣmam ... taṁ tu paśyanti puruṣā jitakrodhā jitendriyāḥ*, Mbh. 14. 2784-5, cf. CU. 8. 6. 5, MU. 6. 30), so also must be, and such also is, the Way that leads to and through it, "the ancient narrow (*aṇu* = *sūkṣma*) path whereby the Contemplatives, knowers of Brahma, enter in, liberated hence on high to the world of heavenly-light" (*svargaṁ lokam ita ūrdhvaṁ vimuktāḥ*, BU. 4. 4. 8). The Self, in other words, is the razor-edged Bridge that holds these

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[34] *Acchedya*, the literal Skr. equivalent of *ἄτομος*; although we have also translated *aṇu*, "minute", by "atomic".

[35] For the Janua Coeli see further my "Svayamātṛṇṇā; Janua Coeli" in *Zalmoxis* 2, 1941.

worlds apart and that must be crossed by all who would reach the Farther Shore, trans-etherial, hyperuranian[36]. As in the Christian Gospels: "I am the way ... I am the door ... No man cometh to the Father save by me ... Enter ye in at the strait gate ... Because strait is the gate and narrow is the way which leadeth unto life, and few there be that find it".

It is against the background of all these contexts that we shall have to consider the Buddhist doctrine of the instant moment (*khaṇa* = *īkṣaṇa*, "glance", cf. *nimeṣa*). Before doing so, it should be noted that "time" (*kāla*) is employed in the passages quoted above both in the plural with reference to *periods* of time, and in the singular to denote the *point* of time from which duration extends both backwards and forwards and that is, therefore, at once the beginning and end of time;

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[36] For the Bridge, see D. L. Coomaraswamy, "The Perilous Bridge of Welfare" in *HJAS*. 8, 1944. Additional references: *Setu vuccati maggo*, VA. 180. RV. 1. 158. 3, V. 84. 2, 7. 35. 13 *(peru)*; TS. 1. 3. 8 *(peru)* and 6. 3. 6. 8 "for he (Agni) is the warden of the waters who is offered up in the sacrifice"; *Bhaktamālā*, "the causeway which God hath built for His liegmen from this world to the next" (Sir G. A. Grierson in *JRAS*. 1910, p. 93); BrSBh. 1. 3. 1, 3. 2. 31; in Borneo, *JAOS*. 25; p. 235; M. Smith, *Al-Ghazali the Mystic*, pp. 77, 78, 143 (the Rational Soul "is the Divine bridge stretched between the brutes who are unmixed evil and the angels who are unmixed good. As it descended from the heavens so it will reascend thither and at the last pass away into the Divine Majesty"); H. R. Ellis, *The Road to Hel*, 1943, p. 186 ("golden bridge"); B. de Zoete and W. Spies, *Dance and Drama in Bali*, p. 106; H. B. Alexander, *Mythology of All Races*, X, N. Am. Indian, pp. 6, 273; Nicholson, Rūmī, *Mathnawī* 1. 3700, Commentary (*ṣirāṭ*).

we have distinguished "time" as period from "Time" as principle by the use of the capital for the latter. There is nothing peculiar in the verbal ambiguity of the word *kāla*; it is the same in English and in Arabic, where "time" and *waqt* may refer either to *periods* of time (whether long or short) or precisely to a *point* of time (as when we ask, What time is it *now*?). It may be noted that *kṣaṇa* and *nimeṣa* may refer either to "brief moments" (measurable units of time) or to moments without duration, according to the context[37].

In the latter sense Nimiṣa, "Twinkling of an Eye", as a name of God, is implied by the *naimiṣiyaḥ*, "people of the moment", of CU. 1. 2. 13, where the reference is to sacrificers, and may be compared to the Islamic designation of the true Ṣūfī as *ibnu'l waqt*, "a son of the moment[37a]".

[37] E. W. Hopkins, "Epic Chronology", *JAOS*. 24, 1903, 7-55, cf. *AJP*. 24, 1ff.

[37a] Cf. St. Augustine, *Conf*. 7. 17, where human reasoning finally "in one tremulous stroke of vision arrived at That which Is ... but I could not hold the vision" (pervenit ad id, quod est, in ictu trepidantis aspectus ... sed aciem figere non evalui). This "stroke of vision" corresponds to the "twinkling of an eye" in which the world was created, when God "made all things at once" (*De genesi contra Manicheos* 1. 2. 4 and *De genesi ad litteram* 4. 34. 55),—the "six days" referring only to the logical order of creation, and not to any sequence of divine acts. In other words, God is always creating the world "now, this instant", and it is only to creatures of time that the creation presents itself as a series of events, or "evolution".

For some discussion of these passages see M. H. Carré, *Realists and Nominalists*, Oxford, 1946, p. 7 and John Goheen, *The Problem of Matter and Form in the* De Ente et Essentia *of Thomas Aquinas*, Cambridge, Mass., 1940, pp. 43, 44.

II

BUDDHISM

Early Buddhism, both in the Canon and as interpreted by Buddhaghosa, emphasizes the inconstancy and the extreme brevity of life under any conditions, in a word, its mortality in the sense that "all change is a dying" (Plato, *Euthydemus* 284 D, Eckhart, Evans ed. I. 384); and asserts unequivocally the unreality of "beings" (*satta*)[1] and of the "self" (*attā*)[2], although

[1] S. 1. 135 *evaṁ khandesu santesu hoti satto ti, sammuti ... nayidha satt' ūpalabbhati;* Mil. 72 *n'atthi koci satto yo imamhā kāyā aññaṁ kāyaṁ saṅkamati;* 268 *na paramatthena satt'ūpaladdhi.* D. 3. 211 *sabbe sattā saṅkhāraṭṭhikā*: S. 1. 97 *sabbe sattā marissanti,*—cf. Aristotle, *De an.* 3. 6 τὸ γὰρ ψεῦδος ἐν συνθέσει ἀεί. Just as much as the modern positivist, the Buddhist regards "individuality" as nothing but a transitory association of sensuous data, mere name and phenomenon, and "the very mother of illusions"; *but* at the same time denies absolutely that all that "is my Self". It should be needless to say that the postulated "self" (*attā*) or Ego (*aham*) is other than the Self to which the Buddha "resorts" (S. 3. 143, D. 2. 120), other than the "plenary, great 'I'" (*pūrṇam ahaṁ mahaḥ, Vivekacūḍāmaṇi* 240), other than the "I" that is "proper to none but God in his sameness" (Meister Eckhart). On the two "I's" cf. *JAOS* 67, 1947, pp. 69, 70.

[2] Nothing that can be named or sensed is a real "Self". When the Freedman realises that in the postulated "self" there is no

both are permissible terms when postulated merely for practical, everyday purposes[3].

"Brief is the life of human beings ... none to whom death cometh not" (S. 1. 108, cf. A. 4. 136). Even of a Brahmā, whose day is of a thousand years, is said that "his life is little, not for long" (S. 1. 143). "Life is like a dewdrop ... a bubble on the water" (A. 4. 137, cf. D. 2. 246 f.),—"like a dewdrop on the tip of a blade of grass when the sun rises, such is the lifetime of men. Mother! do not hinder me" (Vism. 231), i.e. do not hold me back from the Path. "In the last analysis, the moment of the life (*jīvita-khaṇo*) of beings is just as over-brief (*atiparitto*)[4] as the turning of a single thought; like the turning of a chariot-wheel, which turns by means of just one place on its rim, and stands still by means of only one, so is the life of beings that of a single moment of thought, and when this ends the being is said to have ended. As it has been said, 'In the past thought-moment one lived ... in the future thought-

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veritable Selfhood, and no longer sees Self in what is not-Self, then he "no longer worries about what is unreal" *(asatā na paritassati,* M. 1. 135).

[3] The pragmatic validity and real invalidity of the postulates corresponds to the distinction of relative, transactional (*vohārika*) and conventional (*sammuti* = *sammata,* or perhaps = *saṁvṛti,* "contingent") from absolute (*paramatthika*) truth. The affirmative language of postulation applies literally only to the world of accidents (D. 2. 63) and can only be employed analogically or negatively to ultimate reality.

[4] Cf. A. 1. 249 where the little self (of which the "life" is referred to above) is *paritto,* the Great Self *aparitto.* On √*ric* see my *"Ūnātiriktau and Atyaricyata", NIA.* 6. 52-56.

moment one will live ... in the present thought-moment one is alive',

'Life, the self-ish nature (*atta-bhāva*), pleasure and pain, all [5]
Are conjunct (*samāyutta*) in a single thought, and its moment passes lightly'[6]...

Such is the 'Recollection of Death' in terms of the 'Brevity of the Moment'" (Vism. 238).

"Connatural are life and its theft [7] ... Beings are born bearing in themselves inveteration and death. For indeed their recurrent thinking is infected with inveteration coincidently with its origination; like a stone that falls from a mountain top, it breaks up together with the aggregates of which it is composite, so that instant death (*khaṇika-maraṇam*) [8] is connatural with advent" (Vism. 1. 230). In other words, birth and death are not unique events of any contingent existence, but of the very stuff (*evaṁ-dhammo*) of "life"; and this liability, of which a particular birth and death are only special cases, is precisely that "reincarnation" (*puna-bbhava, -āgamana*) from which a final escape is sought; im-mortality (*amata*) and life or becoming (*bhava*) are

[5] "All", i.e. the passible five-fold composite "that is not my Self" (*na me so attā*), passim.

[6] *Eka-citta ... vattate* (*$\sqrt{}$vṛt*) *khaṇo* implying that *citta-vṛtti*, "turning, or inconstancy, of thought" that the Yogi seeks to suppress. The mind is always on the move, and hence often compared to a monkey.

[7] "Theft", i.e. by the "robber", or "waylayer", or "hunter", Death.

[8] Not "sudden death" at the end of one's life, but "instant death" all through it.

not compossibles, but incompatible; "the cessation of becoming is Nibbāna" (S. 2. 117). "As between one thought and the next (*citt'antaro*), such is a mortal" (A. 5. 300): "Could a man be called 'quick' who could so run as to catch in the air arrows loosed at the same time by four master-archers? Quicker than that is the wearing out of the composite-factors of life" (S. 2. 266); "All that is born, whatever is become, is corruptible" (*palokadhammam,* S. 5. 163). It is in this sense that "the Buddha looks upon the world in momentary (*khaṇe khaṇe*) dissolution" (Dpvs. 1. 16)[9].

"Four and eighty thousand aeons the Maruts abide, and yet abide not even for so long as for the sequence of two thoughts... In the present lives the world, and with the break-up of a thought it dies (*paccuppanena jīvati cittabhaṅga mato loke*)[10]... From the unseen come forth born beings, and broken-up pass into the unseen; like a flash of lightning in the ether they arise and pass away" (Vism. 625, 626).

Time (*samaya,* "co-ition") is past (*atīta,* "overgone"), future (*anāgata,* "un-come"), or present (*paccuppanna,* "up-come"). The present has three senses; that of the moment (*khaṇa-*) in which there meet forthcoming, stasis and break-down (*uppāda-ṭṭhiti-bhaṅga-*

[9] Buddhaghosa derives *loka* from *luj, paluj,* to decay, be dissolved (Vism. 427).

[10] Similarly in MU. 6. 17 and 6. 34. 43 "this world, measured by a thought... the conflux, just a thought" (*idaṁ cittamātram ... cittam-eva saṁsāram*), i.e. lasts only for so long as a thought, though it may also be meant that it is "of the stuff of thought", conceptual.

pattam); that of the continuation (*santati-*), i.e. "now" in the extended and usual meaning of the word; and that of road (*addhā-*) [11] in the sense of span of life, whether long or short; and of these three presents, the first is included in the second, and the second in the third. The becoming of the five-fold aggregates, i.e. of "beings", or "selves", takes place in the course of all these "times" (Vism. 431, 473).

Observe that the Stasis is only momentary, not in the continuing present, except in the sense that the moments are surrounded by the continuum; "as it might be a mountain torrent flowing swiftly from afar and carrying everything along with it, and there is no moment, pause, or minute (*khaṇo, layo, muhutto*) in which it comes to rest [12], ... even so is the life of men

[11] In its most extended sense the Road (*addhā*) as distinct from the Way *(magga)* ... much, indeed, as "byway" from "highway"... is that whole extent of the past habitations (*pubba-nivāsa*) that were "not my Self", but in which, already, more tears have been shed than would fill the sea. "It is through not understanding, failing to penetrate, the Four Ariyan Truths (of Ill, its origin and its eradication, and the Way) that we have run and wandered on this long road,... both you and I... How is a Monk a 'Wayman? In that he is moving fast on this long road to where he has not yet been, there where there is a cessation of all composites, a relinquishing of all conditions, a waning out of thirst, an absence of gust, an arrest of becoming, ... Nibbāna ... There is no surcease of Ill until World's End has been reached" (D. 2. 60, A. 3. 164 and 2. 49).

[12] Cf. Plutarch, *Mor.* 432 A, B (on the stream of Time). In my *Figures of Speech or Figures of Thought,* 1946, p. 159, n. 10 (on *kṣaṇika-nairātmādi*) I erred in speaking of existence as "not a continuity but a succession of unique instants

brief and light (*parittaṁ lahukam*) . . . or like the mark made by a stick on water . . . For the born there is no 'not dying'".[13] (A. 4. 137). Buddhaghosa's three momentary accidents (*uppāda, ṭhiti, bhaṅga*)[14] are the same as the "forthcoming, maturity, and alteration or dying (*uppāda, vayo, aññathatta*)[15] of things while

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of consciousness". The Buddhist doctrine is one of "continuity without identity", and it is because of *both* that the question, Is it the same man or another that reaps what has been sown, cannot be answered by a simple Yes or No.

[13] Aristotle's τοῦ αὐτοῦ . . . καὶ γένεσις καὶ φθορά, *Met.* 11. 12. 8.

[14] Vism. 404—405; where it is asked whether in the case of one who visits the Brahma-world in an invisible, mental body, he does this "in the moment of the forthcoming or moment of stability or moment of break-up of the resolute thought" of going there, and answered that he goes "in all three moments"; which is as much as to say that they are not three consecutive moments, but one. It has been previously explained that if he goes in a visible body the journey takes some time, "for the body moves slowly".

[15] Aristotle's αὔξησις, ἀκμή, and φθίσις, dependent on food, *De an.* 3. 12; AĀ. 2. 1. 2 *annena himāni sarvāṇi bhūtāni samananti;* Taitt. Up. 2. 2 *annād vai prajā prajāyante;* D. 3. 211 *sabbe sattā āhāraṭṭhikā;* S. 1. 97 *sabbe sattā marissanti.* "All change is a desistance from a nature", Aristotle *Phys.* 4. 13, 222 B, cf. 4. 12, 221 B: "All change is a dying", Plato, *Euthydemus* 283 D, 285 B, and Meister Eckhart (Evans ed. 1. 384); "Alteratio est via ad generationem et corruptionem", St. Thomas Aquinas, *De mixt. elementorum,* ed. Parma 16. 353, cf. *Sum. Theol.* I. 105. 2 and I-II. 113. 7 ad 1.

It can hardly be overlooked, also, that the three phases of existence, *sṛṣṭi, sthiti* and *laya,* that are resumed in every instant, are the respective functions of the Trinity of Brahmā, Vishnu and Śiva in so far as they are logically distinguished from "the unity of the Person".

they last" (*ṭhitānam*) predicated in S. 3. 137, the same, too, as the "procession, stasis and recession" (*gati, sthiti, nivṛtti*) that are synthesised in Time, SĀ. 7. 20, and as the "efflux, maturity, and Heimgang" (*srava, vṛddhi, astaṁ gamana*) of which the Time without time, Brahma to wit, is the inexhaustible font (MU. 6. 14); and these three are characteristic of whatever is composite (*saṁkhatam*) but not of what is incomposite (*asaṁkhatam,* A. 1. 152)[16],—and emphatically *not* of the Buddha's "incomposite Eternal-Law" (*asaṁkhataṁ dhammam,* A. 4. 359), *not* of Nibbāna (*asaṁkhatam,* Mil. 270), not of that home (*āyatanam*) "where there is neither coming nor going nor stopping, nor falling nor uprising, no this world and that world, no support, no motion, no inception" nor of that "unborn, unbecome, uncreated, incomposite that *is,* and were it not, there would be no way of escape from the born, become, created and composite" (Ud. 80)[17].

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[16] Incomposite, i.e. "simple": "intellectus noster... in cognitionem simplicium pervenire non potest, nisi per remotionem compositionis... aeternitas non varietur per praesens, praeteritum et futurum" (St. Thomas Aquinas, *Sum. Theol.* I. 10. 1 and 2, cf. *Sum. contra gentiles* I. 15); "igitur vita eius non habit successionem, sed est *tota simul.* Est igitur sempiterna" (*Sum. contra gentiles* I. 99). I would add, nisi simul, quomodo omnisciens?

[17] It will not be overlooked that all these negative terms, having *nibbāna* and *dhamma* as their reference, are equally such as are applied to God *secundam viam remotionis* in Christianity; cf., for example, *Sum. contra gentiles* I, cc. 14, 15, 18, 23, 89,... God is immutable, incomposite, without accidents, impassible, etc.

Πάντα ῥεῖ: Heracleitus, fr. XLI, "You cannot dip your feet twice into the same rivers; for other waters are ever flowing in": *sabbe dhammā aniccā* (S. 3. 132). That all things—note the plural—are in flux is no more a denial of the real stability of that which is not a "thing" than is the Buddha's destructive analysis of the composite "self", always followed by the words, "that is not my Self", a denial of the Self. As Aristotle (*Met.* 4. 5. 7 and 15f.) points out, there can be "*also* another kind of essence of things that are, wholly devoid of destruction and generation". It cannot be shown that Heracleitus ever explicitly or implicitly denied this; "all things" flow, no doubt, but there is a one and only Wisdom is distinct from "all things" (fr. XVIII),—not one of them; and if, as Ritter and Preller say, the "Ever-living Fire" is such that *unde manat omnis motus,* this does not mean that itself is moved. Aristotle had absolutely no grounds for accusing "these men" of the belief that "sensibilia are the only realities". In Buddhism the reality of an unmoved, incomposite nature is explicitly asserted over against the evanescence of the composite transients; and when Aristotle goes on to say "it is only the realm of sense around us which continues subject to destruction and generation, but this is a practically negligible part of the whole" (*ib.* 22), this might just as well have been said by the Buddha himself!

That there is "no moment in which the river rests" shows clearly that time is not to be thought of as "made of" a succession of stops, but as a continuum (*saṁtāna*); the indivisible moment is immanent in time,

but not a part of time; just as for Aristotle "time is not composite of atomic nows, any more than any other magnitude is made up of atoms" (*Phys*. 6. 9. 239 B, cf. 8. 8, 262 A).

Inasmuch as all change is a dying, it is from the inconstancy (*anicca*) of life and thought that the Wayfarer seeks to be emancipated,—"seeking for stability" (*aṭṭhitaṁ nissāya,* A. 3. 219). As we have seen above, Stasis is predicated only in the moment (*khaṇa*) or in the Time (*kāla*) without time that is Brahma—that Brahma and Dhamma that the Freedman, *dhamma-bhūto, brahma-bhūto,* D. 3. 84, S. 3. 93) "has become"; but we have not yet drawn the obvious conclusion that these two are one and the same, though be it noted that in one the past and future *meet,* and from the other *flow,* and that both are *without duration.* What are we, then, to understand by such expressions as "one whose thought is stable" (*ṭhita-citto* D. 2. 157, S. 5. 74) "one whose self is stable" (*ṭhit'attā,* D. 1. 57, S. 3. 55, and notably Sn. 359 *parinibbutaṁ ṭhit'attam*) and "stable, motionless" (*ṭhito anejo,* Th. 1. 372), "as in the ocean's midmost depth no wave is born, but all is still, so for the Monk, who's still and does not move (*ṭhito anejo*), nor should he swell at all"[18] (Sn. 920); or by statements such as that "'having crossed, and reached the Farther Shore (*Nibbāna*), and stands' (*tiṭṭhati*), 'an Arahant' is meant" (S. 4. 175, cf. Sn. 946), or that

[18] "Dû solt sîn stête unde veste, daz ist: dû solt gelîch stân liebes und leides, gelükes und ungelükes" (Meister Eckhart, Pfeiffer p. 71).

"having overpast inveteration and death, they 'stand'" (*ṭhassanti,* S. 2. 46)[19].

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[19] "Stability is the peculiar property of eternity" (Marsilio Ficino, *Commentary on Plato's Symposium* IV. 16). "Men saw these two things [body and soul, i.e. *saviññāna-kāya*], pondered them, investigated both of them, and found that each is mutable in man. The body is mutable in its various ages, in its corruption, its ailments, its reflections and its defections, its life, its death. They passed to the soul, which they certainly comprehended as being the better, and also wondered at as being invisible. But they found it too to be mutable, now willing something, now not willing; now knowing, again not knowing; now remembering, again forgetting; now fearing, again daring; now advancing in wisdom, again relapsing into folly. They saw that it was mutable, they left it too, and went in search of something that should be immutable. And thus they arrived at a cognition of God the Creator by means of the things which He created... Examine the mutations of things and thou wilt everywhere find 'has been' and 'shall be'. Think on God and thou wilt find 'is' where 'has been' and 'will be' cannot be" (St. Augustine, *Sermo* CCXLI. 3. 3 + *In Joan. Evang.* XXXVIII. 10, versions by Erich Przywara, S. J.); further, "clarum est eam [animam] esse mutabilem" (*De ver. rel.* XXX. 54), "non quidem localiter, sed tamen temporaliter" (ib. X. 18); "anima vero jam ipsa crearetur" (*De Gen. ad litt.* VII. 24. 35) and "omnia quae fecit, quia ex nihilo fecit, mutabilia sunt" (*De nat. boni,* I. 1). But "Quod autem incipit aut desinit vivere, vel in vivendo successionem patitur, mutabile est" (St. Thomas Aquinas, *Sum. contra gentiles,* I. 99), and more generally, "whatever has had a beginning must have an end" (Aristotle, *Phys.* 3. 4, 203 B; *Samyutta Nikāya* 4. 46). How, then, can "the" soul be or become "immortal"? Only if, with St. Thomas, Plato, Philo and the Upaniṣads, we recognize that "duo sunt in homine", respectively mortal and immortal by nature,—a created "soul" subject to accidents, and an uncreated "Soul of the soul" above them. St. Augustine asks, in fact, "how

The answer in terms of time is that the Buddha, identified with the Dhamma, must be, like the Dhamma, "simple" (*asaṁkhata,* A. 4. 359) and by the same token "timeless" (*akāliko,* A. 4. 406). The Freedman, in fact, "transcends the aeons"[20] (*kappātīto . . . vipamutto,* Sn.

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is it that reason (*ratio* = λόγος) is immortal, and that I am defined as something both rational and mortal at the same time?" and reflects, "if reason is immortal, and if I who analyze and synthesize all these [temporal] things, am reason, then that by which I am called mortal is not 'mine' . . . and we ought to fly from the mortal to the immortal" (*De ordine* II. 50).

If we bear in mind that "Dhamma" (δικαιοσύνη, Justitia, Lex Aeterna) is one of the Divine Names (*dhamma* and *brahma* being interchangeable terms in the Upaniṣads and the Pali Canon), it will be seen that Augustine's words might as well have been those of the Buddha himself; both were "intensely sensitive to the pathos of mutability". St. Augustine's "then that by which I am called mortal is not mine" corresponds exactly to the Pali *taṁ n'ētam mama, n'eso'ham asmi, na me so attā.*

[20] On the incalculable length of the aeons (*kappa*), in their sequences of hundreds and thousand for which no earliest point can be recognized, see S. 2. 178-193, ending with the words, "Impermanent are all composites the nature of which is to originate and age, and having arisen, then to perish; to have done with them is bliss".

An aeon (*kalpa*) qua *saeculum,* is properly speaking a "day of Brahma" consisting of a thousand yugas or 4320 million human years; in his days and nights successive worlds are manifested and dissolved. The life-span of a Brahmā is a hundred years made up of such days. It is from even this "brief" life that the Buddha teaches a "further escape". But it should be noted that *kappa* (√*kḷp,* related to *kṛ*) is also "concept" or "multiple arrangement", κόσμος (cf. RV. 10. 90. 11 *katidhā vi akalpayan?* and conversely MU. 6. 30 *niḥsaṁkalpo*

373), "not a man of the aeons" (*akkapiyo*, Sn. 860); "they call him 'awake' (*buddha*) who discerns the

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nirabhimānas tiṣṭhet), i.e. *prapañca*, and that just as a Wake is *nippapañca* "unelaborate", so *akappiyo* (Sn. 914 etc.) is not only *ex tempore* but also "other than whatever is conceivable *seriatim*", transcendent not only with respect to "times" but also with respect to temporalia.

The "former habitations" and past aeons are all immediately present to a Buddha who can pounce upon them like a lion or reach them like an arrow its mark; others need to look backward through the ages, one or myriad according to their ability, but a Buddha or Arahant envisages past or future aeons directly (Vism. 411). It as if they formed a circle (beginningless and endless cycle) of which he is the centre, no farther from one than from any other point on the circumference; while others, less adept, must work their way backward along the circumference if they are to see any past time.

When just above (Vism. 410) Buddhaghosa speaks of the remembering of "how *I* was then, So-and-so, of such and such a family, etc.", and of the past conditions as being those "in one's own continuum" (*attano saṁtāne*)—or better, perhaps, "one's own lineage"—this is said "conventionally" (*samuccā*), not in very truth (*paramatthena*); for any well taught Buddhist monk knows better than to ask, What was *I* in a former life, or What am *I* now, or What shall *I* be in the future? For he sees things "as become", i.e. strictly in terms of causal process and only speaks of an "I" for practical convenience in everyday life (S. 2. 26, D. 1. 202). Similarly in D. 1. 81 the analogy of *cuti* and *upapatti* to the case of a man who goes to another village and again returns to his own (the "villages" being this and yonder worlds, as in CU. 8. 6. 2) would be a heresy if taken literally, as is explicit in Pv. 4. 3. 31. The three modalities of personality (*atta-bhāva*), past, present, and future, are mere conventional terms of every speech, not ultimate realities (D. 1. 202). In just the same way for the *Yoga Sūtra* (2. 39 and 4. 35), the contemplation of one's

aeons, the flux of things in which they fall and rise ..., one for whom birth (*jāti* = *bhava*, *γένεσις*) is at an end" (Sn. 517). For such as these, explicitly, "there is neither past nor future" (*na tassa paccha na purattham atthi*, S. 1. 141); a Buddha's "recollection" does not operate by a following up of the sequences of births and deaths in time, but siezes immediately and

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former personalities (*ātma-bhāva*) may be a profitable exercise in the earlier stages of a Yogins' development, but one who no longer confuses *sattva* with Self will never propound such questions as "Who was I?", etc. Reincarnation, in other words, is a façon de parler, not really a matter of persistent individualities.

It should be observed that the Buddhist "double truth" (*sammuti-*, *loka-vohāra-*, *loka-niruttiyo*, etc. and on the other hand *paramattha-saccam;* corresponding to the Vedantic *avidyā* and *vidyā*, *vikāra-* and *paramārthika-satyam*), one relative and conventional, the other absolute and certain, correspond to the distinction of metaphysics from "philosophy" (in the narrow sense of the word), and to Plato's distinction of "such knowledge as has a beginning and varies as it is associated with one ore another of the things that wo nowadays call realities" from "the knowledge that abides in that which is absolutely real" (*Phaedrus* 247 E), and distinction of "true opinion" from "truth", parallel to that of becoming from being (*Timaeus* 27 D, 28 A). The *prob*-ability of the relative truths can be established by repeated observation, and such are the statistical "laws of nature" discovered by science; but behind the experience of order "there is a further cause of that which is 'always so'"; it is because of *eternity* that "there never was or will be any *time* when movement was not or will not be"; but such a first cause, being itself uncaused, is not *prob*-able but axiomatic (Aristotle, *Phys.* VIII. 1. 252 B),—i.e. "self-revealing", *sva-prakāśa*, "self-evident".

instantly upon whatever situation in whatever time the Buddha chooses to perceive (Vism. 411); that is to say, all times are present to a Buddha's instant glance.

"Where there is neither past no future" must and can be only *Now*[21]. It is true that for beings in time the momentary now (*khaṇa*) is ever present. But the word, in the sense of "right time" means also op*port*-unity, i.e. *gate*way and although as such this inter-val[22] is continually opened and closed again as time passes[23], what if the instant opportunity is never seized? From this point of view the Buddha counsels: "Get ye across this sticky-mire, let not the Moment pass (*khaṇo ve mā upaccagā*), for they shall mourn

[21] "Ubi futurum et praeteritum coincidunt cum praesenti", Nicolas of Cusa, *De visione Dei,* c. X.

[22] *Inter-vallum:* the "needle's eye" and "strait gate" in the wall of Paradise, "locum ... cinctum contradictoriorum coincidentia, et iste est murus Paradisi, in quo [tu Domine] habitas, cuius portam, custodit spiritus altissimus rationis, qui nisi vincatur, non patebit ingressus" (Nicolas of Cusa, *De visione Dei,* c. IX).

[23] Past and future being, in fact, the Symplegades or Clashing Rocks, and separated only by the now-without-duration through which the Hero (*mahāvīra*) finds his way; in other words, the jambs of the "Doorway of Immortality" (*amatassa dvārā,* M. 1. 226, cf. Vin. 1. 7) that the Buddha (Brahma-become and the Giver of Immortality, A. 4. 226, S. 4. 94) threw open to his followers; and of the Sundoor, of which it is asked, "Who is able (*arhati,* cf. RV. 10. 60. 40 *arhaṇā*) to pass through it",—i.e. is able to take the way of the "unobstructed Sāman, or otherwise, the Lightning" (ib. 1. 30. 2, 4), which "Sāman", as explained above, is to be thought of as the "Harmony" of the past and future forms, *sā* and *ama.*

whose Moment's past"[24] (*khaṇātītā hi socanti*, Sn. 333, cf. Dh. 315, Tha. 403, 653, 1005, Thī. 5, 459); and that he congratulates those of the Monks "whose Moment has been caught" (*khaṇo vo paṭiladdho*) and commiserates those "whose Moment has past" (*khaṇātītā*, S. 4, 126)[25]. Cf. *Anth. Pal.* 16. 275 on the passing Moment.

The moment of release is sudden (*sub-it-aneus*, "going stealthily"): comparable, in fact, to that of an arrow loosed without further effort from the bow to pierce all obstacles and penetrate its mark, being already "that-become" (*tad-bhūta*, i.e. *brahma-bhūta*), when the archer's stance, grip and draw are correct,—the arrow corresponding to the Self and the target to Brahma (Mil. 418 + Muṇḍ. Up. 2. 1. 1—4): and the adequacy of this trope (*upamā*) is so far precise that it extends to the use of the same verbs whether the archer be in fact a bowman or a "target-piercing" (*akkhaṇa-vedhin*)[26] Monk,—viz. *saṁdhā*, "synthesise" applied to the setting up of the bow and the placing (*yoga*) of the arrow, which can

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[24] Almost exactly as William Blake's:

> "...he who kisses the joy as it flies
> Lives in eternity's sunrise...
> But, if once you let the ripe moment go,
> You can never wipe off the tears of woe".

[25] It must not be overlooked, of course, that *khaṇa* has also the meaning of "opportunity" present during a relatively short *period* of time; as in Thī. 459 where Sumedhā says, "This is an age of the Buddhas; gone is the absence of opportunity, the moment's siezed!" (*virajjito akkhaṇo, khaṇo laddho*).

[26] *Akkhaṇa* = Skr. *ākhaṇa*, "target", in JUB. 1. 60. 7, 8 and CU. I. 2. 7, 8; and is not to be connected etymologically with *khaṇa*, "moment".

therefore be thought of as "in *samādhi*"[2], *muc*, "loose", with reference to the liberation of the arrow or the Self, and *vyadh*, "penetrate" (in some forms identical with *vid*, "know" or "find") with reference to the attainment of the archer's "aim"[27].

In the case of the Buddha and some other Arahants (cf. Tha. 173, Thī. 627) the Awakening takes place at dawn, that is to say at a junction of times (*saṁdhi*), or twilight, when it is neither night (the prior form) nor day (the posterior form); and in this connection it is not insignificant that a synonym for *saṁdhi* is *brahma-bhūti*, "becoming Brahma". Even at any point of time, the event takes place at a conjunction of times past and future, and it is not without interest that the word *yoga* in its astronomical sense can be substituted for the "moment" of Awakening (Thī. 4). The suddenness of the Awakening contrasts with the length of the Way, the aeonic time that is *now* and once for all escaped (much as the sudden release of the arrow contrasts with the archer's long training); and this is especially emphasized in the Mahāyāna, notably in Vasubandhu's *Abhisamayālaṇkāra*, where when the end of the long road has been reached, the Great Awakening (*abhi-sambodhi*) is "single-instantaneous" (*eka-kṣaṇa-*)[28].

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[27] See further my "Symbolism of Archery" in *Ars Islamica* 10, 1943.

[28] E. Obermiller, "The Doctrine of Prajñā-pāramitā as exposed in the Abhisamayālaṁkāra of Maitreya", *Acta Orientalia* 11, 1933, pp. 81, 82. Abhi-samaya, "full attainment", may be more literally something like "super-coincidence", as of "time" considered absolutely; cf. also *samayaitum* (co-ire), to "pass through" (the midst of the Sun), JUB. I. 6. 1, suggesting an

The notion of "instantanous [i.e. timeless] awakening" (*ekakṣaṇābhisambodhi*) persists also in Tantrik Buddhism, where it is given, quite logically, a double signifance, comparable to that of a point on the circumference of a circle, such a point being at one and the same time its beginning and end, alpha and omega. As beginning, the awakening is the instantaneous quickening[29] from which the development of the embryo proceeds to the conscious perception of the "net of contingency" (*māyājāla*) in the dimensioned (*nirmāṇa-*) body. On the other hand, as already explained above, the instant or timeless Wakefulness from which generation (the descent of spirit into matter) proceeds is not only the first but also the last moment of the temporal cycle (*kāla-cakra*) of existence (*saṁsāra*), when consciousness returns to its source; evolution (*utpatti-krama* = *pravṛtti*) and involution (*utpannakrama* =

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equation of *abhisamaya* with *parāyaṇa*. I substitute "single-instantaneous" for Obermiller's "momentary" because the latter word could be understood to mean "ephemeral" or "transient", which is not intended; "momentary" would be right for *khaṇe khaṇe*, but not for *eka-kṣaṇe*. *Eka-kṣaṇa-* corresponds to Śaṅkara's *sadya* in *sadyo-mukti*, BrSBh. 1. 1. 11; *sadya*, "this day", like *sakṛt*, "forthwith", "no sooner than", etc., cf. St. Augustine, *De lib. arb.* III. 25. 77 Millia dierum in temporis mutibilitate intelligantur; unus autem diei nomine incommutibilitas aeternitatis vocatur.

[29] Cf. Manu I. 56 "When [the Great Self] becoming atomic (*aṇumātriko bhūtvā*) and with a view to existence and motion inhabits the seed with which it is associated, then it assumes an actual-form (*mūrtiṁ vimuñcati*)". The Tantra asserts the intemporal, Manu the undimensioned quality of the animating principle.

nivṛtti) representing the two halves of the cycle of existence, whether cosmic or individual. So in yoga practise, of which the purpose is involutionary, we find a contemplation on time, directed towards the immediate realisation of ever greater and greater durations and pursued until the whole of time can be experienced *now*. Inspiration and expiration [30] are correlated successively with day and night, fortnights, months, and so on, the procedure culminating in "a complete resolution of microcosmic time by the disciple who, having successively fixed his mind on ever greater periods of time and successively rid himself of them in the course of his breathing, comes at length to the great universal aevum; including all creation from its beginning to its reabsorption",—or rather, regeneration (palingenesis), for "this is the yogic rebirth, briefly and clearly described in the following quotation from *Kālacakratantra*: 'The birthplace of the Royal Conquerors is in one constant moment (*ekasmin-samaye'kṣare*) [31]; when the 'heart' is established in the

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[30] In Yoga practise, the in- and out-breaths are equated or identified, each being sacrificed in the other (BG. 4. 29, 5.27); and that is, in the last analysis a realisation of the Supreme Identity of Mitrāvaruṇau, who are both the in-and-out-breaths (ŚB. 1. 8. 3. 12) and day and night (TS. 2. 1. 74), and of the Unity of the Gale (Vāyu) "who blows as one, but in man becomes these two, the in-and out-breathing" (ŚB. 1. 8. 3. 12), "who bestows these breaths" (TS. 2. 1. 1. 3) and is in fact the "other whereby men live" (KU. 5. 5).

[31] *Akṣara,* "still", "not fluent", from a Hindu point of view, a designation of Brahma, and of the syllable OM by which he is represented in verbal iconography.

Great Breath, and actual breathing has ceased, when the physical sense-powers are relinquished and the divine have arisen, when the natural planes have been left and the planes divine are seen, then I see All, Great King, then there is naught that is not always inseen'". Having thus realised his own-nature or intrinsic being (*svabhāva*), become what he is, the Yogi "without any subjective-objective relation... knows all because it [his essence] comprehends all in a geometric point (*bindu*) and in one instant (*eka-kṣaṇa*)... Time is drowned in eternity" [32].

Such a "control of the moments and their sequence" (*Yoga Sūtra* 3.52) as this is the contemplative equivalent of the Vedic seasonal sacrifices by which Prajāpati, the Year (Time) having been, by the act of creation, unstrung and dismembered into the parts of the year (time), i.e. days and nights, etc., of which the conjunctions are his broken "joints", is made whole and complete again [33], at the same time that the Sacrificer himself is reintegrated (*Śatapatha Br.* 1.6.3.35 and passim). "For because the year is a counterpart

[32] Mario E. Carelli, *Sekoddeśaṭīkā*, Baroda, 1941, Introduction pp. 16, 17 and Skr. text p. 7 (but the version of the *Kālacakratantra* passage is my own).

[33] These "joints" (*parvāṇi*) are (in a surgical sense) "reset", or literally "put together" or "syn-thesised", cf. AĀ. 7. 20, where Time unites (*saṁdadhāti*) past, present and future times. Things thus put together (*saṁhita*) are in *samādhi*, in wholeness or health; and this completes the cycle that began with their division and sickness (*vyādhi*). The separative act of creation is necessarily followed by the unitive (re-collective) process of involution; complication by simplification.

(image) of Prajāpati, they call him the Year" (*ibid.* 11. 1. 6. 13); "the Year is everything, and that is what 'Imperishable' means" (*ibid.* 11. 1. 2. 12). "How many days are there in the year?" That depends upon the way it is divided, but "really, only one; the Year is just that day after day"; and the Comprehensor of this doctrine of the Year himself becomes the Year" (*ibid.* 12. 2. 2. 23).

Except for the last references, the doctrine of the "Now that stands" has been dealt with so far only on the basis of the Hinayāna. Many other scholars, notably Jacobi, Keith [34], De la Vallée Poussin, and Stcherbatsky, have studied it only from the Mahāyāna sources, in which it is expanded, but certainly did not originate. All schools, of course, retain the doctrine of the causal efficacy of the past operative in the present. Keith, indeed, always assuming that the Buddha denied the reality of the Self—which he never did, but rather counselled men to "seek for" and "take refuge" in it (Vin. 1. 23, Vism. 393, D. II. 120, S. 3. 143)—goes so far as to say that the Vaibhāsika doctrine "interpolates the moment of existence (*sthiti*), which, it asserts, was suppressed by the Buddha be-

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[34] Although Keith himself asks respecting the Buddha's "unfathomable" nature predicated in S. 4. 374, etc., whether this "is not to argue that the Tathāgata apart from the mortal constituents is something real but ineffable?" and calls it "unwise to insist on seeing negativism in passages where another explanation is not merely possible, but probably more in accordance with the ideas of the teachers of the early Canon" (*Buddhist Philosophy in India and Ceylon*, 1923, p. 26).

cause of the danger which it involved to the doctrine of impermanence"[35]; implausible, because the notion of a "permanent" Self and "impermanent" self involves no antinomy, and in any case the word *ṭhiti*, even in combination with *attā*, is by no means avoided in the Canon, where also the verbs *tiṭṭhanti* and *ṭhassanti* (as cited above) are used of Arahants; nor can there be any question but that the Dhamma, with which the Buddha identified himself is an "eternal substance" (*akāliko dhātu*). For the Sautrāntikas, whose very name implies their orthodoxy, "the true doctrine is that there is no distinction between the entity, the efficiency, and the time of its appearance; entities appear from non-existence[36]; they exist for a moment; then they cease to exist. Their existence, activity, and action are

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[35] A. B. Keith, *ibid.* p. 167.

[36] "Which temporal things before they are, are not; and when they are, pass away; and when they are passed away, will not be. And so, when they are future, they are not yet; and when past, no longer are" (St. Augustine, *De lib. arb.* 3. 7. 21).

In RV. 10. 72, 2 *asataḥ sad ajāyata*, "the existent springs from non-existence", cf. CU. 3. 19. 1, Taitt. Up. 2. 7, where "non-existent" means "not yet existing", "being in potentiality", *prāgabhāva*. On the other hand, in the contrary formulae of TS. 4. 6. 1. 2, CU. 6. 2. 1, 2 and BrSBh. 2. 1. 17, 18, where being arises only from being, "not from the non-existent", the reference is to the fourth, *atyanta*, absolute, kind of non-existence, that of things that could never be, e.g. "the son of a barren woman". In Aristotelian terms, "appearance from non-existence (*prāgabhāva*)" would be "reduction from potentiality to act", and this is the sense in the beautiful prayer of BU. 1. 3. 28, *asato mā sad gamaya*, "Lead me from non-existence unto existence". Cf. also *JAOS*. 66. 154, n. 30.

all one... Past and future are mere names" [37]. All this involves, of course, the old doctrine of the Void (*śūnyatā*) [38] which Keith discusses in connection with the

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[37] A. B. Keith, *ibid.* p. 166. Rūmī, *Mathnawī* 1. 2201, "Past and future are to thee a curtain from God".

[38] Just as in the case of "destruction" (*khaya*) it must be asked, if the "Annihilationist Heresy" (*ucchedavāda*) is to be avoided, just what can and should be destroyed (Vism. 508), and as in the case of "escape" (*nissaraṇam*) it must be asked, From what, and To what, if we are to know what is meant, so in the case of the "void" (*suññam*) it must be asked, Of what? As Hermes Trismegistos says, "you must not call anything 'void', without saying what the thing in question is void of" (Ascl. III. 33 C); cf. Aristotle, who points out that "to determine whether the 'void' (τὸ κενόν) 'is' or 'is not' we must know what those who use the word really mean by it. The current answer is, 'a place in which there is nothing'. But that is the explanation given by those who hold that nothing 'is' but 'matter' (σῶμα), that which is 'tangible' (ἁπτόν)... and yet no one supposes that they are thinking of the 'point' (ἡ στιγμή), to which the definition really applies" (*Phys.* 4. 7, 213 B-213 A). It is only because such questions are not asked that so many a modern recoils from what he calls the "negativity" of Buddhist formulae; in reality, this *via negativa* implies a "transvaluation" of values, and not their destruction, and what the modern empiricist and "optimist" really resents is precisely the sacrifice that any transvaluation of values demands.

The Buddhist "Void" is empty of things that become and to which the language of affirmative empiricism really applies (D. 2. 63). "Freedom", though a good, is always a freedom *from* limitations, or "de-*void*" of them.

On various senses of the term *suññatā* see Vism. 512. Note also that "Void" and "Plenum" are never unrelated, but rather coincide, cf. Aristotle *Met.* 1. 4. 9, 4. 5. 5, and references in my

Mādhyamikas, or Middle-Waymen, whose name again asserts their orthodoxy. For them "the doctrine of causation must he taken as referring only to the world of ignorance", i.e. opinion. This I take not only to mean that things only *happen* in time and space but also that cause and effect are not only transcendentally but actually always simultaneous; we think of cause and effect as precedent and sequent because all logical formulation applies, in so far as language (the language of postulation) is employed affirmatively only to events (D. 1. 202). So we find it uneasy to understand just how a cause can operate at a distance [39]; how, if things exist only for a moment, can they work on one another? How can their order be explained? In fact, if we presume that acts are causes, then the orderly sequence of events will have to be explained by a "pre-established harmony", arbitrarily established; and this was the false position, into which the Islamic Mutakallemin

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"Kha and other words denoting Zero...", *BSOS.* 7, 1934, pp. 487—497. This coincidence is implied by the Mahāyāna aphorism, *yas saṁsāras tan nirvāṇam,* and the words of the *Īśvara Pratyabhijñā Vimarśinī,* 1. 193, *yac cid viśeṣatvaṁ tad sadāśivatattvam* are only saying the same in other words.

[39] For example, when a plant, transferred from its original environment to another and different set of conditions, continues to flower in "its own" time regardless of the new conditions, this represents in it the working of a kind of memory that, as such, is "imperceptible" (*adṛṣṭa*) to human beings, who can investigate the distant causes in the plants original environment, but cannot "see" them as they still actually exist in the plant, in which cause and effet coincide at every "moment" of its growth.

were forced by the logic of their own kind of atomism. The answer to all these difficulties is that causes never operate at a distance, but *are present* when and where their effects are seen[40]. Nothing of an act outlasts the act itself; but the actions leaves its trace in the environment, which will for ever afterwards be other than it would have been if the event had not taken place; the act and its causal efficacy are two different things, of which one (which is perceptible) and the other (which can only be inferred) persists. It stands to the high credit of Indian logic to have distinguished acts (*karma*) from causes (*kārana*), and to have given the significant names of "unseen" (*adṛṣṭa*) and "not-past" (*apūrva*) to "causality"; the latter term, in particular, at the same time implying that the efficacy of an act (unlike the act itself) is really *present-when* the effect appears; the consequences of past actions always remaining latent until the conditions under which they can operate arise. From this point of view there remains no inconsistency in a combination of the concept of instant actuality with the operation of mediate causes in time.

On the other hand, it would be obviously impossible to apply the causal formula, that the efficacy of the

[40] So it is that, as St. Thomas Aquinas says, "fate lies in the created causes themselves" (*Sum. Theol.* 1. 116. 2). The deduction will naturally follow that, to escape from fate, to be free, which is to fulfil one's destiny (reach one's destination, man's last end), one must have "denied himself" (*denegat seipsum*, Math. 16. 24) and passed over from becoming to being.

cause is really *present-when* the effect appears, the consequences of past actions always remaining latent until the conditions under which they can operate are established; whereas, the causal act and its effects are never simultaneous, however soon the latter may be realised.

On the other hand, it would be obviously impossible to apply the causal formula, "this being so, that follows", to that other world in which there is no becoming and no triad of origination, existence, and decay to be accounted for. Keith continues: "Absolute reality, Çāntideva points out, does not fall within the domain of the intellect (*buddhi*), for that moves in the realm of relativity and error. Nāgārjuna denies consistently that he has any thesis of his own, for to uphold one would be wholly erroneous; the truth is silence, which is neither affirmation nor negation"[41]. All of these are positions already established in the Hīnayāna Canon[42].

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[41] A. B. Keith, *ibid*. pp. 235-239.

[42] Just as for Śaṅkara "this Brahma is silence" (BrSBh. 3. 2. 17): "Whom only silence can declare" (Hermes Trismegistos, I. 31, cf. X. 5): "Nothing true can be said of God" (Meister Eckhart in Evans, 1. 87, citing St. Augustine, cf. Kena Up. I and II). Silence is the "Middle Way" between affirmation and negation; and corresponds to that "untold" (*anakkhātam*, Dh. 218, *avyākatam*, S. 4. 374f.) which the Buddha, for all that he "holds nothing back", cannot reveal for lack of any "speechway" (*vādapatha*). Silence is a "Middle Way" between affirmation and negation; and what is probably the oldest text on Silence in this sense is to be found in the verses quoted in AĀ. 2. 3. 8, v. 3:

De la Vallée Poussin[43] discusses *kṣaṇa* (1) as a measure of time and (2) as the limiting minimum of

"Of speech, that which is 'yes' and which is 'no' . . .
Discarding, the prophets (*kavayaḥ*) found -their-quest;
[Erst] bound by names, [now] they delighted in audition (*śruti*).

The Buddha characteristically "discards the yes and no" when he so often says that the condition of a Freedman, Arahant, post mortem, cannot be described by such expressions as "is" or "is not" or by any copulative or disjunctive combination of these expressions,—just as, for the Upanispads, the Self is *neti, neti*. The Buddha, moreover, likewise denies that he has any "views" (Sn. 837, cf. 152 and 878f., 914).

One further reservation must be made: the Buddhist doctrine of Causality (*hetuvāda,* literally "etio-logy") refers only to the operation of natural or mediate causes, or in other words to necessity; the same applies to the Western doctrine of causality as formulated by Leukippos (Aetios, I. 25. 4): for Plato, *Timaeus* 28 a, "everything becomes from some cause, of necessity"; and so on, to the scholastic doctrine that "nothing happens by chance" (St. Augustine *QQ LXXXIII*, q. 24) and the modern scientist's "faith" in order. Past events determine the character of any entity at any given moment, and in this sense "fate lies in the created causes themselves" (St. Thomas Aquinas, *Sum. Theol.* I. 116. 2). But this no more in Buddhism (or Islam) than in Christianity excludes the entity's responsibility for what, out of the bundle of possibilities that it inherits, it *elects* to do. Otherwise, all the Buddha's exhortations to do this (*kiriyavāda*) and not to do that (*akiriyavāda*), to eradicate this and to make that become, and the whole concept of "self-control" (the conquest, control or management, and impulsion of self by Self, Dh. 104, 160, 379 *attanā codāy'attānam,* 390 and passim) would be meaningless. It is true that all the reactions of the self or Ego are fated and determined by past causes, but all that "is not my Self" (*na me so attā*, passim), and whoever does not identify himself with it is in a position

time, analogous to the atom (*paramāṇu*) considered as an indivisible minimum of "matter"; he barely mentions Hīnayāna sources, and ignores their background altogether, though he quotes Vasubandhu on S. 2. 265. He cites various definitions of the moment in which a thing (*dhamma*) [44] exists, all amounting to this, that the moment has no real duration; it is just as incalculably short as the sum of the aeons would be incalculably long; a moment is simply the indivisible present in which the three phases of any existence take place,—"on ne peut douter que... le *kṣaṇa,* durée du Dharma [chose] soit une grandeur de temps se rapprochant de zéro à l'infinité". At the same time it does not seem to me correct to say that "le temps est discontinu et fait de *kṣaṇas,* comme le corps étendu est fait d'atomes", because the interval between two *kṣaṇas* is no more than the *kṣaṇa* itself a period, and in the same way the space between two atoms is no larger than the measure of an atom, which is nil [45]. Time flows

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to make *it* behave as *he* will. This is not an interference with the operation of causality; it is simply that with "repentance", i.e. "change of mind", previously inoperative causes are brought into play, with new results.

[43] "Notes sur le 'moment' ou *kṣaṇa* des bouddhistes", *Rocznik Orientalistczny,* 8, 1931, 1-13, in which he quotes from his own version of Vasubandhu's *Abhidharmakośa* and from other sources.

[44] Dhamma as "thing", a very common meaning also in the Pali sources, must not be confused with Dhamma as "Eternal Law" and (in *sa-dhamma*) "Natural Law".

[45] Aristotle deals with the problem in much the same way (Phys. IV. 13. 222 a, b): time is "always beginning" (ἀεὶ γὰρ ἐν

in the same way that a river flows, continuously, and never rests (*na ramati*). Poussin cites also some Jaina sources[46] in which *samaya* as point of time corresponds to the Buddhist *kṣaṇa*: "a moment (*samaya*) is the minimum time (*kāla*) required by an atom (*paramāṇu*) to move its own length", and "a moment is the time required by an atom to pass through the interval between two atoms" (*aṇvantaram*)[47].

Stcherbatsky's treatment of the Moment, in *Buddhist Logic*[48] is fuller, and he does recognize that "the origin of the theory of Instantaneous Being is probably pre-Buddhistic"[49]. He observes that for the Buddhist "existence and non-existence are not different appearances *of* a thing, they are the thing itself", quoting

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ἀρχῇ): it is by means of the indivisible now (ἄτομος νῦν) that "time is continuous"; in one sense the nows are different from one another, but in their function of holding time together they are "always the same" (ἀεὶ τὸ αὐτό).

"Moments" are like "points" determining a line; two contiguous points will not make a line, but only three, because a line is not a line unless it has a beginning, middle and end; and so with all other series.

[46] *Tattvārthādhigama,* treated by H. Jacobi in ZDMG. 40; and *Gaṇitasārasaṁgraha,* edited by M. Rangacharya, Madras, 1912.

[47] *Aṇvantara,* cf. *citt'antara* cited above, and *buddh'antara,* "interval between two successive advents", is neither Rangacharya's "un autre atome" nor Poussin's "l'intervalle, l'étendu d'une atome".

[48] *Bibliographica Buddhica* XXVI, 2 vols, Leningrad, 1930, 1932.

[49] Stcherbatsky does not go very far back. In a footnote he says: "The Sānkhya-Yoga in this point, as in many others, comes very near to the Buddhist view, cp. Vyāsa on III. 52— *kālo vastu-śūnya-buddhi-nirmāṇaḥ sarva-jñāna-anupātī, kṣaṇas-*

Śantarakṣita, "the nature of anything is its own momentary stasis and destruction" (*yo hi bhāvaḥ kṣaṇasthāyī vināśa iti gīyate, Tattvasaṅgraha* p. 137.26). Such a destruction is not, of course, the empirical event that takes place when the jar is shattered by a blow and is then no longer a jar, but as much intrinsic to the thing as is is very existence (pp. 94, 95).

Stcherbatsky is right in saying that, in Vasubandhu's words, "because of immediate destruction, there is no (real) motion" (*na gatir nāśāt, Abhidhammakośa* 4.1)[50] and would have been right in emphasizing that motion itself, and therewith time, is only a pragmatic postulate —just as for Buddhists the Ego, individuality, is only a pragmatic postulate—and as a concept, not an external reality but something constructed by ourselves, whose manner of knowing is in terms of time and space,—Kant's "forms of our intellect". But he is not right in deducing from this that "motion is discontinuous"; for, on the one hand, motion is, experientially, continuous, and as we have seen, "the river never stops"; while on the other, there is no motion really; and neither of these propositions, respectively relative and absolute, involves a discontinuity such as would be involved if we relapsed into the fallacy of thinking of a line as "made up of" points. Vasubandhu illustrates his position (as Rumi did) by the example of a moving light, which produces the appearance of a line

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tu vastu patitaḥ", which I take to mean that time is a baseless mental construction, and a derivative of the moment.

[50] See in L. de la Vallée Poussin, *L'Abhidharmakośa de Vasubandhu*, 5. vols., Paris 1923-1931.

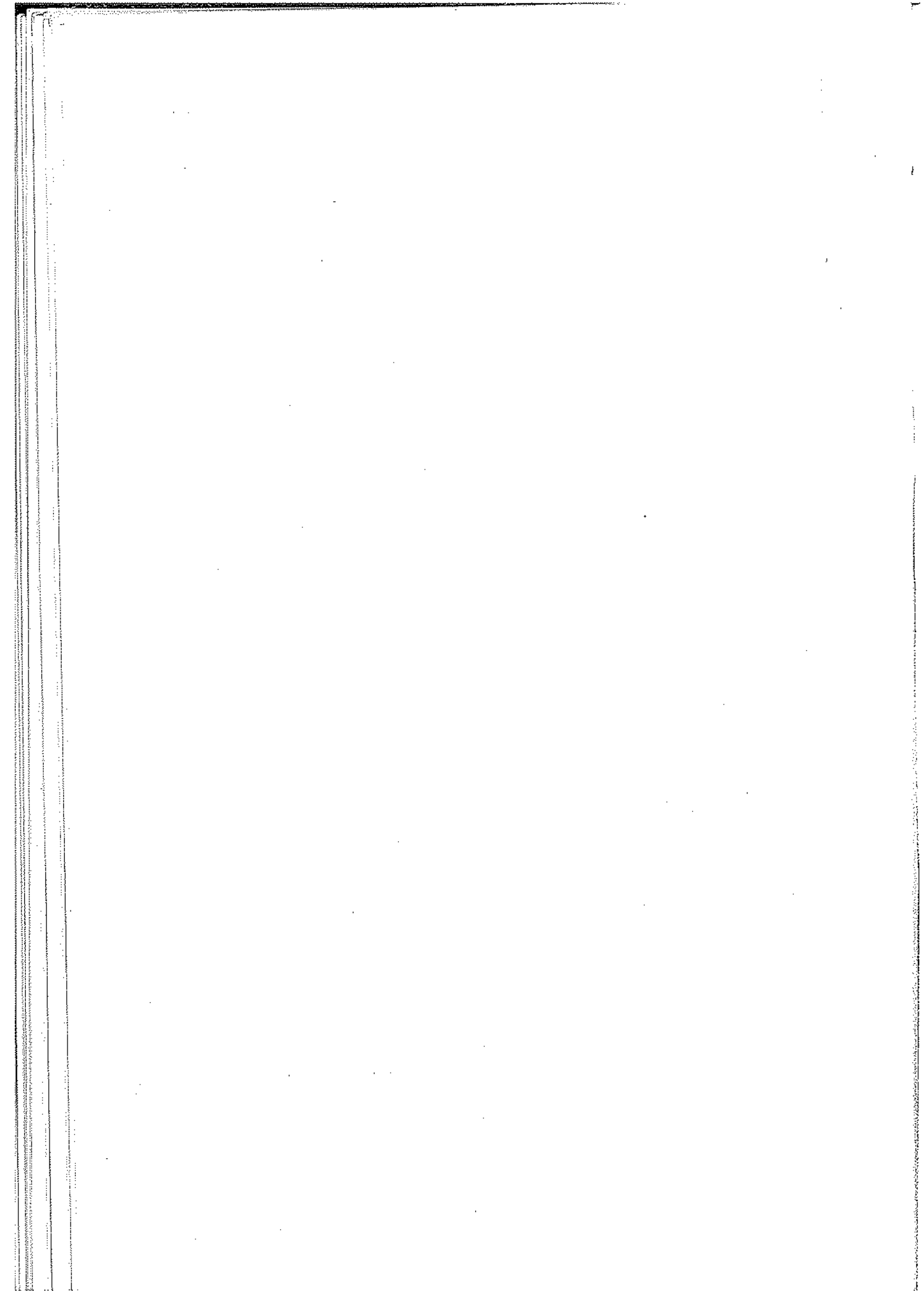
of light, and "moves" in the same sense that we speak of a man as "walking". But Tscherbatsky[51] is wrong in saying (p. 99) that the so-called "motion consists of a series of immobilities". What Vasubandhu actually says is that "the arising of instants is unintermittent...

[51] Tscherbatsky goes on to discuss "some European parallels", chiefly in Bergson. He cites "the world that the mathematician deals with is a world that dies and is reborn every instant, the world which Descartes was thinking of when he spoke of continuous creation" (*Creative Evolution*, pp. 23, 24) and "the Ego has no reality... It is an endless flow" (*ib.* pp. 3, 4), and "the proposition that movement is made out of immobilities is absurd" (ib. p. 326). But when he (Tscherbatsky) sums up (p. 118) by saying "for the Buddhists there are no stops at all other than in imagination, the universal motion never stops... for Bergson, on the contrary, real is duration, the moments are artificial cuts in it", I am unable to understand in what respect there is a contradiction.

For Leibniz there may be consulted F. S. C. Northrop, "Leibniz's Theory of Space" in *JHI.* 7, 1946. Leibniz denies "the void in space, atoms, and even particles not actually divided. And, further, he distinguished two levels of truth, that of "the primary truths of fact" (amongst which are propositions relating to the self) and "the truths of reason" (axiomatic propositions, e.g. that "every spirit... is durable and absolute"),—all of which "has the consequence of making matter as known by any scientific knower or observer purely phenomenal". There is a certain irony, on the other hand, in the fact that for a typical modern nominalist such as A. B. Keith, "such knowledge as is not empirical is meaningless, and ought not to be described as knowledge" (*Aitareya Āraṇyaka*, 1909, p. 42); this last position has been destructively analysed by Wilbur M. Urban, who concludes that "the metaphysical idiom of the Great Tradition is the only language that *is* really intelligible" (*The Intelligible World*, 1929, p. 471)!

rupted" (*nirantara-kṣaṇa-utpāda*); and the word that Tscherbatsky renders by "series" is actually *saṁtāna*[52], which is literally and etymologically a "continuum", and what he says is that "'lamp' is the name conventionally given to a continuum of lights so as to make a sort of unity", and that it is just in the same way that "this man, So-and-so's" name is conventionally given to what is really a continuing process, not a substantial "self". And herein there is no departure from early Buddhist doctrine in which *punar utpadāna* is already explained in terms of the lighting of one lamp from another, and there is no essence (*sattā*) that moves on. In any case, any division of the continuity of time into a series of immobile instants would be just as artifical as a division of time into a discontinuous series of hours or days, or as the division of a line into a series of points; one might as well think of time as a thing *created* by the jerky motion of the hands of a clock!

[52] It is precisely this continuity (*saṁtāna*, which Dasgupta also misrenders by "series") that enables Cakrapāṇi to say that although the existence of the body is momentary (*kṣaṇika*), the connection of the Supreme Self with the body is not intermittent but constant (Comment on *Caraka-saṁhitā* 1. 1. 41). It is significant here, also, that Cakrapāṇi so well observes that "the constancy (or eternity) of the Self is a matter of its concurrence with its own past and future hypostatic experiences" (*nityatvaṁ cātmanaḥ pūrvāparāvasthānubhūtārtha-pratisaṁdhanāt*, Comment on 1. 1. 55), i.e. inasmuch as It is the one and only transmigrant. Thus what is for one a proof of the pseudo-identity of the transient self is for the other a proof of the real identity of the constant Self; and these are complementary, and by no means contradictory, propositions.



The Doctrines of Svabhāva and Kāla in the Mahābhārata and Other Old Sanskrit Works

V.M. Bedekar

The prevailing general trend of philosophical thought in the *Mahābhārata* is, as is well known, characterized by the Aupaniṣadic doctrine of Brahmaism or Atmaism, and also by doctrines, in their earlier stages of development, of the Sāṁkhya, the Yoga or of the Kṛṣṇaite or Vaiṣṇava and Śaiva theism. These doctrines, with all their emphasis on the inexorable law of Karma, still recognize man's moral responsibility for his actions and leave some scope, though small, for human endeavour and for the exercise of the human will for the attainment of Emancipation.

The doctrines of Svabhāva and Kāla ascribed to the demons

There are, however, certain parts in the philosophical texts of the *Mahābhārata* which, in the views they express, stand quite apart from the prevailing general trend of philosophical thought. They deal with theories which aim at explaining the world on the basis of Svabhāva (self-existence or Nature), Niyati (Fate or Destiny), Yadṛcchā (Chance or some invisible force of Cosmic Will), and Kāla (Time). All these doctrines are characterized by a strong determinism which is an utter negation of human endeavour or free will. Perhaps to mark these doctrines off as emanating from heterodox sources, their promulgation is associated with the demons–the enemies of the gods. Before we deal with their historical and ideological implications, we shall first present, in brief, the prominent features of these theories as found in the passages of the *Mahābhārata*, especially of the Mokṣadharma Section which contains the largest number of philosophical passages in the *Māhabhārata*.

XII. 172[1]. In this chapter, in reply to Yudhiṣṭhira's query as to how a man can be free from grief and can attain the Highest State (Paramā Gatiḥ), Bhīṣma narrates an ancient dialogue between Prahrāda, the King of the demons and Ajagara Muni. In that dialogue, Prahrāda, struck by Ajagara's wonderful equanimity, childlike innocence and freshness of mind (3–4)[2], asked the sage the secret of his mental equipoise. In reply to that question, the sage Ajagara discourses on his doctrine of Svabhāva. He says:

1. This and further references to the *Mahābhārata* are from the Critical Edition of the *Mahābhārata* published by the Bhandarkar Oriental Research Institute, Poona 4.
2. The figures refer to the verses in the Chapter under consideration.

"All activities, O Prahrāda, are due to and find their consummation in Nature (Svabhāva). (11)[3]. There is no cause why things arise, grow, decay and perish[4]. Strengthened by this knowledge, I neither feel elated nor dejected (10). All things, big or small, have an end (13). The luminaries in the sky are also seen falling down when their *Time* comes ('Yathākālam' 17). Whatever fare, rich or coarse, I get by *Chance* (Yadṛcchā 19) is welcome to me. I pass days together without anything to eat. Whatever has come my way by *Chance* (24), I never reject, nor do I go after what is difficult to get. I see that pleasure and pain, fortune and misfortune, love and hate, life and death are all *ordained by fate* (*Vidhiniyata* 30). Fortified by this knowledge, I live the Ājagara life of vow in order to restrain my thirsty and unsteady mind. (33)[5]".

The characteristic feature of the doctrine of Svabhāva as described in the above passage is that all events, occurrences and effects in this world and human life come about without any cause. So also from the words which have been deliberately italicized in the above passage, it will be obvious that the doctrine of Svabhāva (Nature) is closely associated with or closely impinges on the doctrines of Time, Fate and Chance.

XII. 215. Yudhiṣṭhira asks Bhīṣma whether man himself is the doer of the actions, whether good or bad, which visit him with their fruits. In reply, Bhīṣma narrates a conversation between Prahrāda and Indra in which Prahrāda propounds his theory of (Svabhāva) Nature to Indra. Prahrāda, the demon-king, is defeated and has taken to a desolate place. Indra seeks him out and inquires of him:—"O Prahrāda, you are so innocent like a child. Your condition should make you feel sad and miserable. ' But you do not appear to be so. What is it due to ?—Is it due to the possession of some knowledge (Prajñā) or a quality of courage (Dhṛtimattā) ?" (12). In reply, Prahrāda discourses to Indra on the doctrine of Svabhāva. He says:

"It is through Svabhāva that all things come into being and go out of being. There is no scope for human effort (15)[6]. One who regards himself to be the doer of good or bad things, is mistaken (17). I am convinced that it is all due to Svabhāva (23)". Prahrāda tries to explain rather cryptically with a quaint simile the connection between Karma and Svabhāva: "As a crow proclaims the presence of cooked rice by its repeated cawings, so also man's actions are only the tokens of his Svabhāva". (25)[7] Prahrāda

3. स्वभावादेव संदृश्य वर्तमानाः प्रवृत्तयः ।
स्वभावनिरताः सर्वाः परितप्ये न केनचित् ॥ Mbh. XII. 172.11.

4. पश्यन् प्रह्लाद भूतानामुत्पत्तिमनिमित्ततः ।
ह्रासं वृद्धिं विनाशं च न प्रहृष्ये न च व्यथे ॥ ib. 10.

5. तृषितमनियतं मनो नियन्तुं व्रतमिदमाजगरं शुचिश्चरामि ॥ XII. 172·33.

6. स्वभावात्संप्रवर्तन्ते निवर्तन्ते तथैव च ।
सर्वे भावास्तथाभावाः पुरुषार्थो न विद्यते ॥ XII. 215.15.

7. यथा वेदयते कश्चिदोदनं वायसो वदन् ।
एवं सर्वाणि कर्माणि स्वभावस्यैव लक्षणम् ॥ XII. 215,25.

goes on to say: "When one is convinced that everything comes into existence through Svabhāva, he remains unaffected by the effects of pride or arrogance (27). It is through Svabhāva that one gets knowledge; it is through Svabhāva that one gets Tranquillity; whatever you see is all due to Svabhāva (35)."[8]

In this passage also, it is clear that the doctrine of Svabhāva means the negation of human effort. It is also significant that in the above passage the working of the inexorable law of Karma is ultimately traced to Svabhāva. As the simile of the crow puts it, Karma, like the cawings of the crow, which reveal their cause–the rice, merely reveals its cause, which is the Svabhāva.

XII. 219. This chapter sets forth the doctrine of Destiny or Fate. Bhīṣma narrates the conversation between Indra and Namuci. Namuci, the demon-king, was defeated. Still he remained unruffled and calm 'like an ocean' (2). Asked by Indra as to how he took his present disaster, Namuci propounds his doctrine of *Destiny:* "There is one ruler without any second. He rules over man from the time he is in the womb. Under his instructions, and as directed by him I carry on like water running down the slope (8)."[9]

"Everything has an end and is struck down *in course of time.* (Paryāya) (13)[10]. One born in this world experiences only what has been already ordained (21). Nothing can prevail against it. No effort can help man to get what is not to be got (20)[11]. One gets only what has been pre-ordained, whether happiness or misery."[12]

In this passage, in the beginning, destiny appears to be cast in the theistic guise of a Personal Ruler (Śāstā); but the whole tenor of the description following after it suggests that what is meant is some mythopoeic power of Fate or Destiny endowed with a will, before which, human effort and will have no place. It should also be noticed that, in the above passage, Destiny stands associated with 'Paryāya' i. e. Time i. e. the Time-process.

XII. chapters 217 and 220. These two chapters contain a very powerful advocacy of the doctrine of Time at the hands or rather from the mouth of Bali–the king of the demons. In reply to Yudhiṣṭhira's question as to how those who are hit hard by Time behave, Bhīṣma narrates in this connection

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8. स्वभावाल्लभते प्रज्ञां शांतिमेति स्वभावत: ।
स्वभावादेव तत्सर्वं यत्किंचिदनुपश्यति ॥ XII. 215.35.

9. एक: शास्ता न द्वितीयोऽस्ति शास्ता गर्भे शयानं पुरुषं शास्ति शास्ता ।
तेनानुशिष्टः प्रवणादिवोदकं यथा नियुक्तोऽस्मि तथा वहामि ॥ XII. 219.8.

10. पर्यायैर्हन्यमानानामभियोक्ता न विद्यते ।
दुःखमेतत्तु यद् द्वेष्टा कर्ताहमिति मन्यते ॥ ibid. 13

11. न मन्त्रबलवीर्येण प्रज्ञया पौरुषेण वा ।
अलभ्यं लभते मर्त्यस्तत्र का परिदेवना ॥ ibid. 20

12. लब्धव्यान्येव लभते गन्तव्यान्येव गच्छति ।
प्राप्तव्यान्येव प्राप्नोति दुःखानि च सुखानि च ॥ ibid. 22

an ancient dialogue between Indra and Bali: Bali once reigned supreme. It was he who once made the Sun rise and set, the rains fall and the fire burn (216.5 ff). He was, however, vanquished by the gods and passed his days in obscurity, reduced to the life of an ass grazing on husks and chaff. Indra, mounted on his elephant Airāvata, sought him out and asked him how he took his present lot (216·13). Bali first taunts Indra for his coarseness and then proceeds to expound his doctrine of *Time*. He says: "I do not grieve, Oh Indra. For I know that everything has to perish in course of Time. The events in Time are so fleeting and evanescent (217.5)[13]. Time, with its power, seizes everything (19). The ultimate fate of things is destruction (9). A man who kills and the man who is killed—both have already been struck down before by Time (14).[14] One burns what has already been burnt, kills what has already been killed (20)[15]. "Earth, Wind, Space, Water, and Light the fifth—These are the source of creatures (17).[16] (Time presides over these). Time seizes everything; it is Time that dispenses things; it is Time that holds everything. Human effort is vain (25)[17]. Prosperity or otherwise is all brought about by Time (36)[18]. My turn to rise and be aggressive is now over; it is now my time to suffer (39 and 44). It is Time that puts everything in its position; it is Time that ripens or cooks everything (39)[19]. All things are subject to Time. Whether you run or stop in one place, Time will not leave you (51). Time can not be grasped by the senses. It consists of seasons, months, fortnights, days, morning, noon, evening and moments (52–53). Oh Indra, you are now so powerful; but you will also be 'put out' by Time (55). Time takes me away in my time and will take you away in your time (220·29). It is on account of Time that I had conquered you; it is on account of Time that you have now conquered me (220·35)[20].

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13. अनित्यमुपलक्ष्येदं कालपर्यायमात्मनः ।
    तस्मात् शक्र न शोचामि सर्वं ह्येवेदमन्तवत् ॥
14. हतं हन्ति हतो ह्येव यो नरो हन्ति कंचन ।
    उभौ तौ न विजानीतो यश्च हन्ति हतश्च यः ॥

It will be seen that the role of Kāla here is eulogized in terms reminiscent of Ātman in the *Kaṭhopniṣad* and the *Bhagavadgītā*.

15. दग्धमेवानुदहति हतमेवानुहन्ति च ।
    नश्यते नष्टमेवाग्रे लब्धव्यं लभते नरः ॥
16. पृथिवी वायुराकाशम् आपो ज्योतिश्च पञ्चमम् ।
    एतद्योनीनि भूतानि तत्र का परिदेवना ॥
17. कालः सर्वं समादत्ते कालः सर्वं प्रयच्छति ।
    कालेन विधृतं सर्वं मा कृथाः शक्र पौरुषम् ॥ XII. 217.25
18. न कर्म तव नान्येषां कुतो मम शतक्रतो ।
    ऋद्धिर्वाप्यथ वा नर्द्धिः पर्यायकृतमेव तत् ॥ ib. 36
19. कालः स्थापयते सर्वं कालः पचति वै तथा ॥ ib. 39
20. कालेन त्वाहमजयं कालेनाहं जितस्त्वया ।
    गन्ता गतिमतां कालः कालः कलयति प्रजाः ॥ 220.35

"Time first overtook me and is now running after you (220·68). Thousands of kings of the demons have passed away in the course of Time. It is difficult to transgress Time (220.41)[21]. See, there is this dark terrible Man of Time, hard to overcome, who has bound me like an animal with a rope. (220·82)"[22]. Towards the end, Indra compliments Bali to the effect that Bali is 'the Philosopher of Time' and that he has the closest and the most intimate knowledge of Time[23].

Thus, according to the doctrine of Kāla, everything in this world has been pre-ordained—victory and defeat, prosperity and poverty, the coming together of the elements and their disintegration. Man is but a helpless creature in the hands of this dreadful Time.

Besides the above passages, there are also some other passages in the *Śāntiparvan* of the *Mahābhārata* which associate the doctrines of Svabhāva and Kāla with materialism. It is said that thinkers who philosophize over the primary material Elements, posit the ultimate principle of Svabhāva[24] or of Kāla[25]. According to these thinkers, all things, whether sensient or insensient, are the product of the Elements which come together or dissolve by nature i. e. by Svabhāva or under the influence of Time or Kāla.

It will be seen from the above references in the *Mahbāhārata* that the doctrines of Svabhāva, Niyati, Yadṛcchā, and Kāla preach a strong determinism, leaving no scope for human effort. The conceptions underlying these different doctrines appear to overlap, and are almost identical with one another. Whether it be the inherent nature of things (Svabhāva or Naturalism), or the inevitable Destiny (Niyati or Fatalism), or some mysterious Will or Whim immanent in things (Yadṛcchā or Accidentalism) or whether it be Time (Kāla) which presides over the present, past and future of things—all these agree in that they pre-determine the course of events in this world and in man's life—in fact the whole gamut of existence from birth, growth and decay to final dissolution. The two ideas fundamental to all these doctrines are the impermanence of the world and man, and the negation of human will and effort. The thorough-going determinism of these doctrines is based on crass materialism, according to which everything

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21. बहूनीन्द्रसहस्राणि दैतेयानां युगे युगे ।
    अभ्यतीतानि कालेन कालो हि दुरतिक्रमः ॥ (220.41)

22. अयं स पुरुषः श्यामो लोकस्य दुरतिक्रमः ।
    बद्ध्वा तिष्ठति मां रौद्रः पशुं रशनया यथा ॥ ib. 82

23. (भवान्) कालचारित्रतत्त्वज्ञः । ib. 105
    कालं पश्यति सुव्यक्तं पाणावमलकं यथा । ib. 104

24. केचित् पुरुषकारं तु प्राहुः कर्मविदो जनाः ।
    दैवमित्यपरे विप्राः स्वभावं भूतचिन्तकाः ॥ XII. 224. 50

25. येभ्यः सृजति भूतानि कालो भावप्रचोदितः ।
    महाभूतानि पञ्चेति तान्याहुर्भूतचिन्तकाः ॥ XII. 267. 4
    विद्धि नारद पञ्चैतान् कालषष्ठान् स्वभावतः ॥ ib. 6

in the world including human life is the product of the Material Elements (Earth, Water, Fire, Air, and Space) which come together and go off at the behest of Svabhāva, Kāla etc. The eloquent way in which these powers have been described in the above passages suggests that each power is conceived as a mythopoeic personification invested with a will of its own, governing in its supreme sway, the whole course of the world and of human life. It is also, further, significant that these doctrines of Svabhāva and Kāla presented in these passages are advocated by or associated with the demons–the enemies of the gods. It probably implies that these doctrines were considered by the redactors of these passages as heterodox or heretical, as emanating from a non-Vedic tradition.

The Mythopoeic idea of Time

Looked at historically, from the point of evolution of ideas, the ideas underlying these doctrines may belong to a very early stage in the history of cosmological thought. Early man, confronted with things and nature-forces around him, experiencing a feeling of an undifferentiated existence or solidarity with them, conceived of them as a living presence endowed with a will. In early man's thinking, a human being was a part of society and society was imbedded in nature and dependent on cosmic forces. Natural phenomena were conceived in terms of human experience and human experience was conceived in terms of cosmic events. Early man felt with his whole being that there was some inherent power endowed with life and will which determined the constitution, nature and the 'shape' of things. [26] This mythopoeic thought, which conceived things as endowed with life and will, also embraced early man's conception of *time* which he conceived not as uniform duration or a sequence of moments but as a power endowed with life and will which governed the days and nights, seasons and the origin, growth and end of things. [27]

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26. Vide the following:—

" The world appears to primitive man neither inanimate nor empty but redundant with life; and life has individuality, in man and beast and plant, and in every phenomenon which confronts man—....Any phenomenon may, at any time, face him, not as 'It', but as 'Thou'. In this confrontation, 'Thou' reveals its individuality, its qualities, its will. 'Thou' is not contemplated with intellectual detachment; it is experienced as life confronting life, involving every faculty of man in a reciprocal relationship. Thoughts, no less than acts and feelings, are subordinated to this experience." —*Before Philosophy* by HENRI FRANKFORT, MRS. HENRY FRANKFORT etc. (Pelican books) (p. 14).

27. For early man's conception of time, see the following from *Before Philosophy*, loc. cit. p. 32.

" Early man does not abstract a concept of time from the experience of time....Time is experienced in the periodicity and rhythm of man's own life as well as in the life of nature. ....The manifestation of time in nature, the succession of the seasons, and the movements of the heavenly bodies were conceived quite early as the signs of a life-process similar, and related, to that of man. Even so, they are not viewed as 'natural' processes in our sense. When there is change, there is a cause; and a cause, as we have seen, is a will. "

These mythopoeic ideas arising at some early stage of development of human thought continued for a long time to have a strong hold on human thinking so that the inherent Nature of things and Time came to be conceived as sovereign rulers of the universe. We find the echoes of such 'substantialization' of Svabhāva and Kāla in the above-mentioned passages of the *Mahābhārata*. As another early instance of the mythopoeic idea of Time gripping the minds of the people, we might refer to the two famous Kāla-hymns (Kāla-Sūktas) of the *Atharvaveda* (XIX. 53 and 54), in which we find graphically enshrined the old idea of Time as the supreme ruler of the Universe.[28]

" He (Time) surely did bring hither all the beings (worlds), he surely did encompass all the beings (worlds). Being their father, he became their son; there is, verily, no other force, higher than he." [29]

" Time begot yonder heaven, Time also begot these earths. That which was, and that which shall be, urged forth by Time, spreads out."[30]

"By him this (universe) was urged forth, by him it was begotten, and upon him this universe was founded. Time, truly, having become the brahma (spiritual exaltation), supports Parameṣṭhin (the highest lord)."[31]

"....having by means of the brahma (spiritual exaltation) conquered all the worlds, Time, the highest God, forsooth, hastens onward." [32]

As human speculation with regard to the universe and man's place in it progressed, and as human thought grew conscious of its power and formulated such doctrines as the doctrine of the Ātman, of God, of the law of Karma, it freed itself of these mythopoeic ideas, as a result of which the deterministic theories of Svabhāva and Kāla which had served for early man as complete and independent explanations of the nature of the world and of man, came gradually to be looked down upon as emanating from heterodox circles and were consequently thrown into the background. The history of these deterministic theories of Svabhāva, Niyati, Kāla, as far as it can be reconstructed from ancient and early literary sources leads us to conclude that these deterministic doctrines, in certain stages of their development, had come to be associated with non-Vedic sects and were considered as materialistic and as such, repugnant to moral values. We propose to trace here

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28. Translation by M. BLOOMFIELD. *Hymns of the Atharvaveda*, S. B. E (1897), p. 224-225.

29. स एव सं भुवनान्यारभत् स एव सं भुवनानि पर्यैत् ।
पिता सन्नभवत् पुत्र एषां तस्माद्वै नान्यत्परमस्ति तेजः ॥ – Av. XIX. 53·4

30. कालोऽमूं दिवमजनयत् काल इमाः पृथिवीरुत ।
कालेन भूतं भव्यं चेषितं ह वि तिष्ठते ॥ ib.5

31. तेनेषितं तेन जातं तदु तस्मिन्प्रतिष्ठितम् ।
कालो ह ब्रह्म भूत्वा बिभर्ति परमेष्ठिनम् ॥ ib.9

32. सर्वाँल्लोकानभिजित्य ब्रह्मणा ।
कालः स ईयते प्रथमो नु देवः ॥ ib. XIX. 54·5

a short history of these doctrines from early literary sources, so that it will provide us with a rough historical perspective for the statement of these doctrines in the *Mahābhārata.*

Svabhāva and Kāla : in the Śvetāśvatara

That these doctrines of Svabhāva, Kāla, Niyati and Yadṛcchā were considered as heretical is implied in the passages of the *Śvetāśvataropaniṣad.* Out of the two passages in that Upaniṣad, the one questions the validity of these principles as the cause of the world,[33] and the other calls the protagonists of these doctrines as 'misguided'.[34]

Makkhali Gosāla

Perhaps the earliest powerful protagonist of the doctrine of Svabhāva (Naturalism) was Makkhali Gosāla, an eminent contemporary of Buddha. This founder of the non-Vedic Sect called the Ājīvikas held that the characteristics of all things were predetermined and that there was no cause or condition which predetermined them.[35] He did not believe in human effort and held that all creatures were helpless against destiny. "Every being, whatever breathes, every existing, living thing is powerless, strengthless, energyless. Through Fate, Chance and Nature, it experiences joy and sorrow in the six kinds of birth."[36] "As a ball of thread, thrown down, rolls itself off, and goes to the end, even so the fools and the wise, while they wander in the cycle of being, make an end of their misery."[37]

Moral laxity of the Svabhāvavādins

The protagonists and the followers of these deterministic doctrines denying the free will of man and his moral responsibility for any good or evil must have, in practice, tended to degenerate into parasites of society, leading a vagrant, idle and immoral life. In fact, Makkhali Gosāla, the champion of this doctrine, in practice, is said to have led an immoral life.[38] Such

33. 'कालः स्वभावो नियतिर्यदृच्छा ... इति चिन्त्यम् । *Śv.* I. 2

34. 'स्वभावमेके कवयो वदन्ति कालं तथान्ये परिमुह्यमानाः' ib. VI. 1

35. "The essence of Makkhali's system is this, that there is no cause, either proximate or remote, for the depravity of beings or for their purity. They become so without any cause. Nothing depends on one's own efforts or on the efforts of others." —S. N. DASGUPTA, *A History of Indian Philosophy* I. p. 79-80.

36. vide *Dīghanikāya* II. 20 : "सब्बे सत्ता सब्बे पाणा सब्बे भूता सब्बे जीवा अवसा अबला अविरिया नियति-संगति-भाव-परिणता छस्स एवाभिजातिसु सुखदुक्खं परिसंवेदेन्ति."

37. ibid. II. 20: "सेयत्था पि नाम सुत्तगुळे खित्ते निब्बेठियमानं एव फलेति एवम् एव बाले च पण्डिते च संधावित्वा संसरित्वा दुक्खस्स अन्तं करिस्सन्तीति ॥"

38. See: "Buddha charged him (Gosāla) with incontinency, Mahavīra accuses him of teaching that an ascetic commits no sin if he has intercourse with women. He charges his followers with being 'the slaves of women'..To this charge Gosāla laid himself open by his own action in choosing for his headquarters the premises of a woman" —A. F. R. HOERNLE, *Encyclopaedia of Religion and Ethics* (on 'Ājīwikas') vol. I p. 261.

dubious conduct on the part of the chief protagonist must have led to slackness in morals among his followers and must have been the cause of bringing on the doctrine the disparagement of society.

Viewed in this light, the condemnation of the doctrine implied in the *Śvetāśvataropaniṣad* and the fact that the propagation of this doctrine is attributed in the *Mahabharata* to the kings of the demons become easy to explain. In chapter 218 of the *Mokṣadharma* section of the *Śāntiparvan*, a story is told how the goddess of Sovereignty or Prosperity left Bali the demon-king when the latter fell from Virtue. There is also another story in the *Rājadharma* section of the *Śāntiparvan* showing how Prahrāda, the king of the demons, having been deprived of morality, was subsequently forsaken by Prosperity. These stories, shorn of their mythological trappings, probably indicate the climate of opinion in which the champions of these deterministic doctrines found themselves.

The statement of Svabhāvavāda : by (i) Aśvaghoṣa

The next early statement of the views of the Svabhāvavādins is found in the work of Aśvaghoṣa[39] (c. 1st century A. D.).—"Some explain that good and evil and existence and non-existence originate by natural development ('Svabhāvāt'); and since all this world originates by natural development, again, therefore, effort is vain[40]. . . Who fashions the sharpness of the thorn or the varied nature of beast and bird ? All this takes place by natural development ('*Svabhāvāt*'). There is no such thing in this respect as action of our own will, a forteriori no possibility of effort."[41]—This statement of the views of the Svabhāvavādins—'one of the fullest statements of their position that we have'[42] by Aśvaghoṣa[43] brings out their thorough-going determinism.

(ii) Paramārtha

The next important references to the positions of Svabhāvavādins and Kālavādins are found in the Chinese Commentary by Paramārtha (548 A.D.) on the *Sāmkhyakārikā*. Paramārtha under S. *Kārikā* 61 refers to the heretical

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39. *Buddhacarita* (IX. 58-62), edited and translated by E. H. JOHNSTON (Calcutta, 1936).

40. केचित्स्वभावादिति वर्णयन्ति शुभाशुभं चैव भवाभवौ च ।
स्वाभाविकं सर्वमिदं च यस्मात् अतोऽपि मोघो भवति प्रयत्नः ॥ ibid. IX. 58.

41. "स्वभावतः सर्वमिदं प्रवृत्तं न कामकारोऽस्ति कुतः प्रयत्नः"—Translation by E. H. JOHNSTON.

42. E. H. JOHNSTON-in the Introduction to the *Buddhacarita*,-loc. cit. (p. liv.)

43. Aśvaghoṣa also refers to Svabhāvavāda and Kālavāda in *Saundarānanda* XVI. 17.

views which hold that Svabhāva and Kāla are the cause of the world:[44] "Teachers holding that Svabhāva is the cause of the world argue: It is not proper to say that Puruṣa is freed after having seen Prakṛti, because Freedom comes according to Svabhāva. As it is said in a verse previously quoted: 'He who made the swans white, the parrots green, the peacocks of variegated colour, will provide for us'. Thus the whole world is caused by Svabhāva. There are also texts which say that Kāla or time is the cause of the world. As it is said in the following verse: Kāla brings all creatures to maturity; Kāla withdraws the world; Kāla is awake while the rest are sleeping; it is hard to transgress Kāla.' Everything happens through Kāla."

The above-mentioned verse illustrating the doctrine of the Svabhāva-vādins is also quoted by Paramārtha under *Kārikā* 27 where he refers to it as coming from the school of materialists, thereby implying that the Svabhāv-vādins were considered as a school of the materialists.[45]

(iii) *Śāntarakṣita*

Another important statement of the views of the Svabhāvavādins is found in a Buddhist work—the *Tattvasaṁgraha* of Śāntarakṣita (A. D. 705–762 A. D.). " The effects are self-existent and are produced neither by different things nor by themselves; for no cause can be found for the filament of the lotus or the eyelike marks on the peacock's tail. If the cause can not be found, it certainly does not exist. Such is the case with this diversified Universe. Similarly, the feelings of pleasure, pain etc. have no causes, because they appear only at times. "[46]

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44. Vide the following from *Suvarṇasaptatiśāstra with a commentary reconstructed into Sanskrit from the Chinese translation of Paramārtha* by N. AIYASWAMI SASTRI (Tirupati, 1944). " अथ स्वभावकारणवादिन आचार्या आहु: । (पुरुष:) प्रकृति दृष्ट्वा मुच्यते इतीदं न युज्यते । मोक्षस्य स्वभावलब्धत्वात् । यथाह पूर्वं श्लोक:—

येन शुक्लीकृता: हंसा: शुकाश्च हरितीकृता: । मयूराश्चित्रिता येन स नो वृत्तिं विधास्यति ॥ एवं सर्वो लोक: स्वभावकारणक: ।...पुनर्वचनानि सन्ति यत् काल: कारणं भवति इति । यथोक्तं श्लोके—काल: पचति भूतानि काल: संहरते जगत् । काल: सुप्तेषु जागर्ति कालो हि दुरतिक्रम: ॥ सर्वाणि कार्याण्यपि कालेन भवन्ति ॥ " —p. 88–89.

45. " लोकायतशास्त्र उक्तम् । 'येन शुक्लीकृता हंसा: etc. ' इदं लोकायतिकवचनम् ।' ibid. p. 41.

46. *Tattvasaṁgraha* of Śāntarakṣita with the commentary of Kamalaśīla, . Gaekwad's Oriental Series. XXX (1926) verses 110–112. The translation is from the Foreword (p c-c 1) to the above edition of the *Tattvasaṁgraha* by BENOYTOSH BHATTACHARYA. The relevant verses are :

सर्वहेतुनिराशंसं भावानां जन्म वर्ण्यते ।
स्वभाववादिभिस्ते हि नाहु: स्वमपि कारणम् ॥
राजीवकेसरादीनां वैचित्र्यं क: करोति हि ।
मयूरचन्द्रकादिर्वा विचित्र: केन निर्मित: ॥
यथैव कण्टकादीनां तैक्ष्ण्यादिकमहेतुकम् ।
कादाचित्कतया तद्वद्दु:खादीनामहेतुता ॥ 110-112. p. 62.

[Continued on the next page,

(iv) *Gauḍapāda*

Gaudapāda (c. 800 A. D.)—the grand-preceptor of Shri Śankarācārya, in his *Karikā*, while alluding to a variety of views regarding the creation of the world, refers to the doctrine of Kāla as one among them[47].

We have collated above, as far as we could, in a rough historical sequence, a number of passages bearing on the doctrines of Svabhāva and Kāla covering a period of over 1500 years from the *Śvetāśvataropaniṣad* to the time of the *Tattvasaṁgraha*. It shows that these doctrines had been developed as complete, independent doctrines to explain the world and human life. They appear to have been regarded as heterodox or different from prevailing beliefs and by some as materialistic. The general trend of thought characterizing the history of these doctrines confirms what we have seen of these doctrines in the passages of the *Mahābhārata*. There, these doctrines, as we have said before, stand apart from the prevailing current of philosophical doctrines in the *Mahābhārata*. The heterodox nature of the doctrines of Kāla and Svabhāva is implied by their being ascribed to the demons.

The Iranian Doctrine of Zervanism

An interesting and at the same time, an intriguing parallel to the above doctrines of Kāla, Svabhāva and Niyati is found in the Iranian doctrine of Zervanism. Zervanism regarded *Zurvan* (the Iranian word for 'Time') as the ultimate governing principle of the universe. Zurvan, according to that doctrine, was intimately associated with Fate, Chance and Nature. Zervanism professed a thorough-going determinism, leaving absolutely no scope for human will and effort. It was also materialistic. Zurvan, the god of Time, may have belonged to remote antiquity. On the strength of Iranian sources, it has been definitely established that a religious sect professing Zervanism was dominant in Iran in the beginning of the 3rd century A. D. In order to introduce the readers to the tenets of Zervanism, we quote below a few extracts in extenso from a recent, scholarly study[48] of this subject by Prof. R. C. Zaehner of the Oxford University:

Continued from the preceding page.]

Kamalaśīla-the commentator who was the disciple of Śāntarakṣita-commenting on स्वमपि कारणं in the above verse 110, says: "ते (स्वभाववादिनः) एवमाहुः न स्वतो नापि परतो भावानां जन्म...। स्वमिति। स्वरूपम्। अपिशब्दात् पररूपमपि। पूर्वकास्तु स्वभावं कारणमिच्छन्ति एते तमपि नेच्छन्ति।" Thus Kamalasila seems to suggest that there were two schools of Svabhāvavādins: One school maintaining at least Svabhāva—'the nature of the things itself'—as the Cause to the denial of other things as causes, the other school denying even Svabhāva as the cause. The distinction tends to be metaphysical and abstract.

E. H. Johnston in his "Notes on some Pāli words" [*Journal of the Royal Asiatic Society* (1931)—pp. 566-568] while discussing the word 'अधिच्च-समुप्पन्न' points out how the concept underlying this word is identical with Svabhāvavāda. He notes that अहेतुवाद is identified with स्वभाववाद in the Jātakamāla version (XXIII. 17).

47. कालात् प्रसूतिं भूतानां मन्यन्ते कालचिन्तकाः। I. 8.
    काल इति कालविदः। II. 24.

48. *Zurvan: a Zoroastrian Dilemma*—R. C. Zaehner. (Oxford, 1955).

"That heterodox branch of Zorastrianism which habitually goes by the name of Zervanism differed from the orthodox dualism in that it elevated Time to a supreme position over the powers of good and evil and that it laid great stress on the operations of fate" (p. 265).

"NYBERG long ago suggested that a form of Zervanism might well have existed in its own right—a religion of Time which took no cognizance of Ohrmazd and Ahriman. Our researches seem to substantiate this. The Pahlvi sources tell us of the birth of Cosmos (Spihr) which is the body of the finite Time from the Infinite (p. iii). Material creation evolves from this. Spihr is Primal Matter: from it derives the 'first form', the four elements[49]; thence the 'second form' or the mixing of the primary properties, and finally the 'third form,' man and animals; that is organic life. With the advent of the 'third form' we have the fully developed Cosmos which exists for twelve thousand years[50] when the whole is taken up into the 'last form' or 'final body' (tan i pasēn) which is in turn absorbed into the infinite."

"The Cosmos itself derives from the 'Seed' into which Time enters: Time–space is itself the source of this 'Seed'. Thus the finite Cosmos is represented as having been born from the Infinite and at the appointed moment it will be reabsorbed. In this finite world, Zurvān–Time who is the macrocosm, and as such the fountain-head and source of the human race, continues to manifest himself as natural law and fate. He is quite unconcerned with spiritual values: he is not only the god of nature (čihr) but nature itself. He is the first cause of all physical phenomena, the Absolute conceived of as the origin of primal matter. Even when this purely physical conception of the Universe combines with the genuine Mazdean ethical dualism, Time and Fate continue to control only the physical universe: they have no part in the ethical struggle between good and evil."—p. 266.

"This again is clearly borne out by the testimony of Firdausi who presents us with a purely Zervanite theory of the world of man dominated (p. 267) by Time, Fate and the heavenly bodies. Of salvation and damnation there is not a word."

"This doctrine is, in fact, quite plainly that of the Daharis who derived the whole Cosmos from Infinite Time, denied the existence of spiritual values, of rewards and punishments, heaven and hell (p. 23)."

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49. We find an interesting parallel in the already mentioned *Mahābhārata* passage (XII. 217) where Bali, the demon-king who is discoursing to Indra on the all–suzerainty of Kāla (Time) says that the creatures are but the products of the elements (over which Kāla presides):

पृथिवी वायुराकाशमापो ज्योतिश्च पञ्चमम् ।
एतद्योनीनि भूतानि तत्र का परिदेवना ॥ XII. 217.17

50. We find another interesting parallel in the Indian computation of the total number of years which comprise the four Yugas—the Kṛita, Tretā, Dvāpara, and Kali. In Vyās's discourse to his son Śuka, *Mahābhārata* XII. 224.19 (ff) the number of years calculated for 4 Yugas amounts to 12000 years.

"This form of Zervanism which we may call 'Zervanite materialism' can be deduced from certain passages in the Dēnkart. It is concerned with matter in the Aristotelian sense. Zurvān as the Infinite is simply the source of all matter, and his limitation, regarded as the birth of the finite from the Infinite, is the origin of the universe. The differentiation of the Universe we know is regarded as the imposition of 'form' on undifferentiated 'matter'" —p. 267.

"Thus we seem to be driven to the conclusion that Zervanism is as pessimistic a creed as is likely to be found on the surface of the globe. .The general impression is one of gloom. In this life, man must be content with his lot, extinguish his passions, and resign himself to fate:"—p. 272.

Intriguing parallelism

The above rather long extracts will show how the tenets of Zervanism are strikingly similar to the inter-related doctrines of Kāla, Svabhāva and Niyati attributed to Bali, Prahrāda and Namuchi in the passages of the *Mahābhārata.* It will be seen that in both there is a similar stress on determinism, negation of human effort and will, on resignation to fate and on materialism.

The parallelism is striking and, as we have said, also intriguing. The *Mahābhārata* passages ascribe the doctrines of Kāla, Svabhāva and Niyati to the kings of the demons. In the literary history of these doctrines, these doctrines were regarded, as we have already seen, as heterodox and materialistic. The similarity with the Iranian doctrine of Zervanism may, perhaps, be considered as indicative of the relations between the Indo-Iranian communities in the prehistoric past. As is testified by the history of the opposite meanings which were acquired by the words Deva and Asura in course of time among the Indian and Iranian communities, there probably arose at some time in the ancient past a schism among the Indo-Iranians which led the Indians and Iranians to view with hostility each other's doctrines and objects of worship. The *Mahābhārata* view that the Kālavāda and the Svabhāvavāda emanated from the demons may, perhaps, be reminiscent of that schism. It is probable that there were some among the Indo-Iranians who professed the deterministic and the materialistic doctrines of Kāla and Svabhāva. After the schism, the group that migrated to India, carried lively memories of those doctrines. Perhaps, there might be among the immigrants some who professed those doctrines. But as religious and philosophical thought in India shaping itself under the influence of Upaniṣadic Brahmaism or Atmaism, gradually developed the Sāmkhya and Yoga, as also Vaiṣṇavaite and Śaivite theistic doctrines, the independent doctrines of Svabhāva and Kāla still prevailing among their erstwhile brethren and comrades—the Iranians—came to be regarded as heterodox and as such came to be ascribed to the demons.

Refutation of Svabhāva and Kāla

We have already seen how the author of the *Śvetāśvataropaniṣad* questioned the validity of the doctrines of Svabhāva and Kāla. There is

also ample evidence in the Mahābhārata to show that these deterministic doctrines were stoutly opposed by thinkers belonging to the Vedic tradition. For instance, in the *Śukânupraśna* chapter of the *Mokṣadharmaparvan* (XII. 229), we find a systematic refutation of the doctrine of Svabhāva. In that passage, Vyāsa in his discourse to his son and disciple Śuka, runs down the Svabhâvavâdins and upholds the role of human intelligence and effort. He says: "Those, who say that Svabhāva alone is the final cause of things winnow but hay and get nothing but chaff.. It is knowledge or intelligence which secures human welfares."...."Operations such as tilling the land, harvesting of grain, building houses, making vehicles, laying out gardens and prescribing medicines against illness are devised by men of intelligence. Even the sequence of events ('Pārâvaryam') in creation is, after all, known only by intelligence or knowledge. It is therefore knowledge which is the highest refuge of creation."[51]

Similarly, we find a spirited refutation of the Kālavāda in a passage in the 'Pujanī–Brahmadatta–Saṁvāda' in the *Āpad–dharma–parvan* of the *Śāntiparvan* (XII. 137.45–53).

Svabhāva and Kâla incorporated into Vedic tradition

While some thinkers belonging to the Vedic tradition stoutly opposed Kāla and Svabhâva as an ultimate principle, others adopted a conciliatory 'containing' attitude. They recognized that these doctrines had a certain element of truth in them, though as independent theories of explaining the world, they were preposterous. The material Elements, while conglomerating to make this world, do evince a certain specific tendency or Svabhâva; so also there is seen in the world a priority and a posteriority (Paurvâparya), a certain sequence or order in the events or occurrences in nature and in human affairs, which must be ascribed to the principle of Kāla. They, therefore, realistically conceded a secondary position to these doctrines in their cosmological and cosmogonical schemes. Thus, they took the edge off their heterodoxy, knocked the bottom out of their opposition and finally assimilated them within the Vedic fold. This process is seen in the *Mahābhārata* itself; e. g. in the *Mokṣadharmaparvan*, Pañcaśikha

51. येषां चैकान्तभावेन स्वभावः कारणं मतम् ।
पूत्वा तृणबुसीकां वै ते लभन्ते न किंचन ॥ 4
···कृष्यादीनि हि कर्माणि सस्यसंहरणानि च ।
प्रज्ञावद्भिः प्रक्लृप्तानि यानासनगृहाणि च ॥ 7
आक्रीडानां गृहाणां च गदानाम् अगदस्य च ।
प्रज्ञावन्तः प्रवक्तारो ज्ञानवद्भिरनुष्ठिताः ॥ 8
···प्रज्ञा संयोजयत्यर्थैः प्रज्ञा श्रेयोऽधिगच्छति । 9
···पारावर्यं तु भूतानां ज्ञानेनैवोपलभ्यते ।
विद्यया तात सृष्टानां विद्यैव परमा गतिः ॥ 10
—XII. 229.

in his scheme of 12 principles explaining the composition of the world and of man, includes Svabhāva as one of the principles by which the elements come and stand together and finally dissolve.[52]

Again, Sulabhā in her discourse with Janaka propounds a scheme of thirty principles in which she concedes the 20th place to Kāla.[53] In the *Bhagavadgītā* we find outstanding examples of the Svabhāva and Kāla being pressed into the service of the central argument of the poem. Thus Svabhāva approximates, in one place, to Prakṛti[54], to the empirical Brahman as conditioned by Prakṛiti in another[55], and to a disposition as determined by Karma in still another.[56] Similarly Kāla is conceived as an aspect of the Godhead, especially its terrible aspect.[57] and again as calculation of terrestrial time.[58] Similarly, Kāla, in many other passages of the Mbh., represents the time or the moment of the fructification of man's Karma. Thus, when any calamity, disaster or death befalls, or a man acts at a particular moment in a particular way, it is said that such occurrences or events occur under the impulse of Kāla, implying thereby that that particular occurrence or event represents the fructifying moment of the past Karman. '*Kālacodita*' 'Impelled by Time' is one of the stock phrases of the *Mahābhārata* in such contexts.

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52. धातवः पञ्चशाखोऽयं खं वायुर्ज्योतिरम्बु भूः ।
    ते स्वभावेन तिष्ठन्ति वियुज्यन्ते स्वभावतः ॥ 7
    …इन्द्रियाणीन्द्रियार्थश्च स्वभावश्चेतना मनः ।
    प्राणापानौ विकारश्च धातवश्चात्र निःसृताः ॥ 9 XII. 212

Apropos of this topic, it may be mentioned that Prof. E. FRAUWALLNER ['Untersuchungen zum Mokṣadharma: Die Sāṁkhyistischen Texte', *WZKM*, Band 32. Wien (1925) p. 194] has brought out the significance of Svabhāva in such passages of the *Mahābhārata* as the above in the following words: "If we try to ascertain the meaning of the passages where Svabhāva occurs, we see that the word is used predominantly in those places where the Atman's remaining untouched ('unberuhrtheit') and its inactivity as against Matter is described. Especially explicitly this is shown in the piece XII. 222 (cr. ed. 215) where the theme is formed by this idea." XII. 222 (cr. ed. 215) is the passage setting forth the Svabhāvavāda of Prahrāda, which we have already summarized in the beginning.

53. ऊर्ध्वम् एकोनविंशत्याः कालो नामापरो गुणः ।
    इतीमं विद्धि विंशत्या भूतानां प्रभवाप्ययम् ॥ XII. 308, 109
54. *Bhagavadgītā* 5·14.
55. ib. 8·3.
56. ib. 17.2; 18.41. OTTO STRAUSS in his *Ethische Probleme aus dem Mahābhārata* deals with the doctrines of Kāla, Svabhāva and Niyati, under 'Pessimism'. He says: "The two main pillars of Epic Pessimism are Perishability and want of Freedom." (p. 25). As illustrations, he discusses the doctrines of Kāla, Svabhāva, Vidhāna or Vidhi in the Epic. While tracing the changes in the connotations of the word Svabhāva, he notes (p. 51-52), how Svabhāva from its individual sense of 'Specific character of an individual' and group sense of 'character of a group' assumes the cosmic sense of the special character of the empirical world,
57. *Bg*. XI. 32.
58. ib, X, 30

Summary of Conclusions

We have traced above, in broad outline, a short history of the doctrines of Svabhāva-vāda and Kāla-vāda with the *Mahābhārata* passages (especially in the *Mokṣadharmaparvan*) as the starting and also the leading point of our inquiry. The broad conclusions, to which our inquiry leads, may be summarized as follows:

(i) The doctrines of Svabhāva, Kāla, Niyati—every one of them independently claiming to explain the universe and man's place therein—arose very early—at least five or six centuries before the Christian era. Makkhali Gosāla, the contemporary of Buddha and Mahāvīra, was one of the earliest Svabhāvavādins.

(ii) These doctrines preached a thorough-going determinism which was a negation of human will and effort. They were considered as materialistic and heterodox and as emanating from non-Vedic sources.

(iii) A theoretical profession of these doctrines most probably led, in actual practice, to laxity in morals among their protagonists and adherents. They were regarded with disfavour by thinkers belonging to the Vedic tradition. The fact that the Mahābhārata passages attribute the promulgation of these doctrines to the leaders of the demons suggests that these doctrines were regarded as heterodox and stemming from non-Vedic sources.

(iv) The doctrine of the Kālavāda finds a striking parallel in the old-Iranian doctrine of Zervanism. Before the 3rd century A. D., there was prevalent in Irān a religious doctrine named Zervanism which elevated Time to the position of the Supreme God who was also the God of Fate and Chance. Zervanism was a thoroughly deterministic creed negating human will and effort. The striking parallelism between the Kālavāda and Zervanism leads us to conjecture that both in their early forms may have had a common source. The hostility with which the Vedic Indians came to view the doctrines and the gods of the non-Vedic Iranians was probably the reason why the Kāla-vāda and the Svabhāva-vāda were attributed to the demons, as we find it in the passages of the *Mahābhārata*.

(v) The successive thinkers belonging to the Vedic tradition condemned these doctrines of the Kālavāda aud Svabhāva-vāda as they meant negation of man's free will and moral responsibility, and established against them the relative supremacy of human intelligence, of human effort and of the law of Karma.

(vi) Gradually, however, the doctrines of the Kālavāda and the Svabhāva-vāda were incorporated and assimilated in the general current of the Vedic tradition, after being assigned a minor, secondary place in the scheme of the philosophical and religious schools. We find this process already at work in the *Mahābhārata*.

The Notion of Cyclical Time in Hinduism

Arvind Sharma

I

IT IS a widely, almost universally, held view that the notion of time in Hinduism is cyclical[1] as opposed to the notion of time in the Semitic religions (Judaism, Christianity and Islam) wherein it is linear.[2]

1 The wide, almost universal spread of the view that the Hindu notion of time is cyclical is attested to by the fact that it is prevalent among scholars of Comparative Religion, Hindu religion, History and Economics alike. For its prevalence among Comparative Religionists see Mircea Eliade, *The Myth of the Eternal Return* (New York: Pantheon Books, 1954), p. 112–118; *Yoga: Immortality and Freedom* (Pantheon Books, 1958), p. 123–4 and *Patterns in Comparative Religion* (Cleveland: World Publishing Co., 1968), p. 182; Huston Smith, *The Religions of Man* (New York: Harper and Row, 1958), p. 352, etc.; R. C. Zaehner, *Hinduism* (London: Oxford University Press, 1962), p. 5–6, 81, 137; James Hastings, *Encyclopedia of Religion and Ethics* (New York: Charles Scribner's Sons, 1908), p. 210; R. N. Bellah, ed., *Religion and Progress in Modern Asia* (New York: The Free Press, 1965), p. 174–5, 182–3, etc. For its prevalence among Indologists see A. L. Basham, *The Wonder That Was India* (New York: Hawthorn Books Inc., 1963), p. 323–4, and "Hinduism" in R. C. Zaehner, ed., *The Concise Encyclopedia of Living Faiths* (London: Hutchinson and Co., 1959), p. 229; W. Norman Brown, *Man in the Universe* (Berkeley: University of California Press, 1966), Ch. 3; H. Zimmer, *Myths and Symbols in Indian Art and Civilization* (New York: Pantheon Books, 1946), p. 20–22 and *Philosophies of India* (New York: Pantheon Books, 1953), p. 106; Ainslee T. Embree, ed., *The Hindu Tradition* (New York: The Modern Library, 1966), p. 220; Rene Guenon, "Some Remarks on the Doctrine of Cosmic Cycles," *Journal of the Indian Society of Oriental Art* (1937, Vol. 5, p. 21–28; R. Shamasastry, The World Cycle, *Ibid.*, (1943), Vol. 11, p. 115–125, etc. The cyclical descriptions of time are reiterated by Monier Monier-Williams, *Hinduism* (London: Society for Promoting Christian Knowledge, 1877), p. 21–22; J. Murray Mitchell, *Hinduism Past and Present* (London: The Religious Tract Society, 1885), p. 121; Robert A. Hume, *An Interpretation of India's Religious History* (New York: Fleming H. Revell Co., 1911), p. 27; J. N. Farquhar, *A Primer of Hinduism* (Oxford University Press, 1912), p. 46; *The Crown of Hinduism* (Oxford University Press, 1913), p. 139–40, etc. For the prevalence of the view that the Hindu notion of time is cyclical among historians see Arnold J. Toynbee, *A Study of History*, Vol. 4 (Oxford University Press, 1946), p. 28–29; Christopher Dawson, *The Dynamics of World History* (London: Sheed and Ward, 1957), p. 398–9; Patrick Gardner, *Theories of History* (New York: The Free Press, 1965), p. 19; and for its prevalence among economists see K. W. Kapp, *Hindu Culture, Economic Development and Economic Planning in India* (London: Asia Publishing House, 1963), p. 41–42.

2 For more on the cyclical and linear notions of time see C. A. Patrides, *The Phoenix and the*

This view that the Hindu notion of time is cyclical is based on the Hindu theory of *Yugas*, *manvantaras* and *kalpas*. This system is found in several versions, of which the following may be regarded as a standard description (Basham 1956: 320–1):

> ... the cosmos passes through cycles within cycles for all eternity. The basic cycle is the *kalpa*, a "day of Brahmā," or 4,320 million earthly years. His night is of equal length. 360 such days and nights constitute a "year of Brahmā" and his life is 100 such years long ...
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> In each cosmic day the god creates the universe and again absorbs it. During the cosmic night he sleeps and the whole universe is gathered up into his body, where it remains as a potentiality. Within each kalpa are fourteen *manvantaras* or secondary cycles, each lasting 306,720,000 years, with long intervals between them ...
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> Each manvantara contains seventy-one *Mahāyugas* or aeons, of which a thousand form the kalpa. Each mahayuga is in turn divided into four *Yugas* or ages, called *Kṛta*, *Tretā*, *Dvāpara* and *Kali*. Their lengths are respectively 4,800; 3,600; 2,400 and 1,200 "years of the gods," each of which equals 360 human years. Each yuga represents a progressive decline in piety, morality, strength, stature, longevity and happiness.

This has led scholars to conclude that the Hindu notion of time is cyclical and such is the prevailing view on the Hindu notion of time in the world of modern scholarship.

II

How correct, however, is it to say that the Hindu notion of time is cyclical? The accuracy of this statement could be tested by reviewing the references to the notion of time in the literature of Hinduism. The literature of Hinduism represents an enormous corpus which is usually grouped in the two broad categories of ŚRUTI and SMṚTI (Theodore de Bary 1958: 217). One could then check Śruti and Smṛti literature for references to the Hindu notion of time. References to the notion of time in Śruti literature may now be examined in the light of the prevailing view that the Hindu notion of time is cyclical.

Śruti literature is coextensive with the Vedas (1958: 217), and Vedic literature as contained in the four Vedas has been divided into the three tiers of (1) the Saṃhitas (2) the Brāhmaṇas (3) the Āraṇyakas and Upaniṣads (Winternitz 1927: 53).

In Ṛg Veda Saṃhita the closest one comes to having a cyclical description of time is where the year is compared to a wheel (*Ṛg Veda* I.164.2). It is possible to see in the imagery of the circular movement of the wheel intimations of the cyclical notion of time (Brown 1966: 71). Similarly, R. C. Zaehner refers to the fact that in one of the hymns Viṣṇu " 'sets the 360 days and nights in motion like a self-revolving wheel.' This perhaps is a faint adumbration of the doctrine of *samsāra*,

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Ladder (Berkeley: University of California Press, 1964), p. 1–2, passim. For an elaboration of the cyclical aspect see R. N. Bellah, *op. cit.*, p. 38–41; Arnold J. Toynbee, *A Study of History*, Vol. X (Oxford University Press, 1955), p. 280 under the heading "Cyclic movements".

For the contrast between Indic and Semitic approaches to time see A. J. Toynbee, An *Historian's Approach to Religion* (Oxford University Press, 1956), p. 7–12.

the endless flux of matter in ever-recurring cyclic time" (Zaehner 1966:34). The interpretation of these lines as confirming or anticipating a cyclical notion of time in Hinduism presents several difficulties. This comparison of the movement of the year with the wheel could be poetry rather than philosophy – a reference, and poetic at that, to the calendrical recurrence of the year rather than to a cyclical notion of time. Similarly, if later Indic religious literature contained an almost exclusive association of the wheel with time one would feel more confident of concurring with the views expressed above. But the use of the word Cakravartin (Monier-Williams 1964:381), where connotation of the wheel is spatial rather than temporal, the use of the expression Dharmacakra (1969: 511) and other uses of the cakra-image (*Bhagavadgita* III.16) preclude such an assumption.[1] Moreover, one must distinguish clearly between the doctrine of *samsāra* and that of the *yugas*, etc. There are two different and distinct cycles – the *karmic* cycle of the individual soul and the *kalpa* cycle of the cosmos. R. C. Zaehner fails to make this distinction. Finally, the view that the Hindu notion of time is cyclical is based primarily on the theory of the *yugas* and there is no evidence to show that this theory was current in the Saṃhita period. To conclude on the basis of the references cited above that it was would be to beg the question.

The Aitareya Brāhmaṇa next claims attention. In a famous verse (*Aitareya Brahman* VII.15) the words Kṛta, Tretā, Dvāpara and Kali are mentioned collectively. Since these words occur in the theory of the *yugas* it has led some scholars to conclude that the theory of the four *yugas* was now current. Such a view presents several problems. Max Muller takes these terms to refer to the Yugas (Muller 1859:412). In doing so he followed Sāyaṇa (Muller 1873: Preface), the Indian Vedic exegete who flourished in the 14th century A.D. in the early days of the Vijayanagar Empire (R. C. Majumdar 1967:371) by when the doctrine of the four Yugas had become widespread. Thus the danger of reading back a later fact cannot be easily discounted. As a matter of fact the four words – Kṛta, Tretā, Dvāpara and Kali – refer to the throws of the dice (Kane 1946:886–90). Gambling has been known from very ancient times in India (*Ṛg Veda* X.34). A. B. Keith thus rejects Max Muller's interpretation.[2] In his view "the ages are not Vedic."[3]

Turning to the Brāhmaṇas as a whole one observes that there are references to Yugas in other Brāhmaṇas. "Four ages – Puṣya, Dvāpara, Kharva and Kṛta – are mentioned in the later Ṣaḍviṃśa Brāhmaṇa and the Dvāpara in the

1 For a spiritual rather than a cyclical significance of the wheel in Hinduism and Buddhism, see C. A. F. Rhys Davids, "Buddhist Wheel and Way", *Journal of the Indian Society of Oriental Art*, Vol. 8 (1940), p. 6–17.

2 A. B. Keith, *Ṛg Veda Brāhmaṇas* (Harvard University Press, 1920), p. 302. Also see A. A. Macdonell, A. B. Keith, *Vedic Index of Names and Subjects*, Vol. II (London: John Murray, 1912), p. 193.

3 A. B. Keith, *op. cit.*, p. 302, fn. 6. P. V. Kane feels that Kṛta, Tretā, Dvāpara and Kali – which "originally ... were names of certain throws of dice in gambling" "from the 4th century B.C. (if not earlier)" came to designate the ages of man. Vide *History of Dharmasastra*, Vol. V, Part I, *op. cit.*, p. 587.

Gopatha Brāhmaṇa" (Macdonell, Keith 1912:193). But there is no reference to the appearance of any ages in cycles which is the crux of the theory of the *yugas*. Thus, for example, Kṛta Yuga is a conceptual term denoting a utopian age, not a chronological term indicating a division of cyclical time. Similarly, references in the Āraṇyakas do not indicate a belief in the cyclical notion of time.

Now the Upaniṣads. Mircea Eliade (Eliade 1958:123) reads a reference to the four Yugas in the Māṇḍūkya Upaniṣad (I.2). In interpreting the expression "catuṣpāt" therein as referring to the four Yugas Mircea Eliade has followed Heinrich Zimmer,[1] who claims to follow Śaṇkara. According to him the four Yugas "are, as Śaṇkara pictures it, like the four feet of a cow" (Zimmer 1953: 123). But the expression used by Śaṇkara is "catuṣpāt kārṣāpaṇavat na gauriveti," that is to say, the four parts are to be understood like the four parts of a coin and *not* like the four feet of a cow (Nikhilananda 1936:13). Zimmer seems to have misread Śaṇkara.

Thus, there seems to be no unequivocal reference to the cyclical notion of time in the Śruti. The word Yuga occurs (*Ṛg Veda* I.139.8). Words like Kṛta, Tretā, Dvāpara and Kali (*Aitereya Brāhmaṇa* VII.15 etc.) occur. But the word Yuga does not mean an age of the theory of four Yugas (Kane 1946:886–8), and the words Kṛta, Tretā, Dvāpara and Kali mean throws of dice (1946: 886–8). The word Kali Yuga does not occur at all.[2] Words like Kṛta Yuga occur (Ṣaḍviṃśa Brāhmaṇa V.6) but are not a part of any scheme of cosmic cycles. Hence the cyclic notion of time cannot be said to have been prevalent in Vedic times. As a matter of fact, one can even go further and say that the concept of time in the Vedas in general comes closer to being theistic rather than cyclical. Maurice Bloomfield even sees it as headed in the "direction of monotheism."[3]

It is thus clear that the evidence for the existence of a cyclical notion of time in the Śruti is slight in the extreme and to that extent it is not entirely correct to say that the Hindu notion of time is cyclical, since this statement does not hold for the Śruti.

1 He cites what "Zimmer so cogently saw" (*Yoga, op. cit.*, p. 123).

2 The word Kali occurs in the Ṛg Veda (VIII 66.15 etc.) but not as a throw of dice. The word Yuga occurs (III 26.3 etc.) but not in the sense of an "aeon" of the theory of four Yugas. The word Kaliyuga does not occur at all in the Rg Veda. Later on Kali is used in the sense of a throw of dice but this writer has yet to come across the word Kaliyuga in the Vedas.

3 "The most transcendental of these personifications is that of Time – namely, Prajāpati, 'lord of creatures', at first an abstraction is readily associated with the generative power of nature. Now this generative power is revealed particularly in the cycle of the year. By easy association Prajāpati is next boldly identified with the year: 'Prajāpati reflected: 'This verily I have created as my counterpart, namely, the year. Therefore, they say, 'Prajāpati is the year' for as counterpart of himself he did create the year.' Thus the prose Brahmana texts naively, yet closely, reason. And out of some such reasoning 'Time' itself emerges as a monotheistic conception, in whose praise the Atharveda sings two hymns" (Maurice Bloomfield, *The Religion of the Veda*; New York: G. P. Putnam's Sons, 1908, p. 245. The two hymns: 19.53 and 54).

The other comprehensive category of sacred literature in Hinduism is Smṛti. Smṛti literature encompasses a vast mass of writings.[1] Prominent in this category are the two Hindu epics – the Rāmāyaṇa and the Mahābhārata, the eighteen Purāṇas and the Manu Smṛti. Does this corpus contain references to the cyclical notion of time?

Unlike the Śruti, Smṛti literature is replete with references to the cyclical notion of time. It contains references to the theory of the Yugas which are clear, explicit, direct and unequivocal.[2] Thus, at first glance it appears that whereas the association of the cyclical notion of time with Śruti is rather tenuous, such a notion has a firm grip on Smṛti literature. Let us now see how firm this grip is.

Take the Rāmāyaṇa. The epic glorifies Rāma. The reign of king Rāma or Rāmarājya has been described in idyllic terms.[3] As a matter of fact Rāma is the ideal ruler of Hindu mythology and his reign was the ideal reign. This belief in Rāmarājya has a strong hold on the Hindu mind. Mahātmā Gandhi freely used the expression.[4] There exists in India even today a political party which calls itself the Rāmarajya Pariṣad (Weiner 1957: 168). And yet Rāma did not flourish in the Kṛta Yuga which is the best period according to the theory of the four Yugas![5] It is clear, therefore, that the theory of the decline of Dharma through the four ages is subject to certain exceptions. The rule of Rāma constitutes one such exception.[6]

Similarly, while it is true that in several passages of the Mahābhārata the Yuga theory is outlined, yet the epic provides striking pieces of evidence to the contrary. To see this clearly the basic issue may first be clearly stated. If the theory of the decline of Dharma through the four Yugas applies then Dharma must decline inexorably through the ages and the kings accordingly become more and more evil with the passage of time and the condition of the people deteriorate. If this theory does not apply then it is possible for the kings to be good and by suitable policies to improve the lot of the people. An excellent king might even usher in a golden age.[7] The issue thus is: is the king the maker

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1 On the comprehensiveness of Smṛti literature see P. V. Kane, *History of Dharmasastra*, Vol. V, Part II, *op. cit.*, p. 1261–1262, 1277 etc.

2 See Mahābhārata, Vanaparva Chapter 149, 188; Śāntiparva Chapter 69 etc.; Viṣṇupurāna 1.3; 6.3; Vāyu Purāṇa Chapters 21, 22, 57, 58, 100 etc.; Manu Smṛti I 61–74, 79–86 etc.

3 Yuddhakānda 128. 96–104 etc.

4 See *Harijan*, 2-1-37; 1-6-47; *Hindi Navajivan*, 4-7-1929 etc.

5 M. Winternitz says that according to the Purāṇas "Rāma appears in the Kṛtayuga" (*op. cit.*, p. 505). This is incorrect. "According to the unanimous belief of the Hindus, Rāma came long before Kṛṣṇa, the former at the end of the Tretā, the latter at the end of the Dvāpara Yuga" (James Hastings, ed. *The Encyclopedia of Religion and Ethics*, Vol. VII, p. 194; also see P. V. Kane, *History of Dharmasastra*, Vol. V, Part I, *op. cit.*, p. 55). Moreover, the Rāmāyaṇa credits Rāma with making people as happy as in Kṛtayuga, vide Bālakanda 1.94.

6 The life of Kṛṣṇa provides another such exception. The presence of Kṛṣṇa on the earth is said to have delayed the onset of Kaliyuga, vide Viṣṇupurāṇa IV.24 108–113 etc.

7 As P. V. Kane remarks "four Yugas are not watertight specific periods of time but the

of the age or the age the maker of the king. According to the theory of the four Yugas quite obviously the age is the maker of the king. Yet Bhīṣma says in the Śāntiparva of the Mahābhārata: "Whether it is the king that makes the age or the age that makes the king is a question about which you should not entertain any doubt. The truth is that the king makes the age" (Moore 1967: 250). This statement clearly flies in the face of the theory of the four Yugas on which the thesis that the notion of time in Hinduism is cyclical primarily rests.

When one turns to the most celebrated section of the Mahābhārata, the Bhagavadgītā, one finds the theory of the four Yugas further undermined. Kṛṣṇa undercuts it theologically just as Bhīṣma undercut it politically. It is true that the Bhagavadgītā contains hints of the Yuga theory[1] but the famous Avatāra verses[2] have the effect of seriously limiting the operation of the theory of the four Yugas. In the famous verses, wherein the doctrine of Avatāra finds an early articulation, Lord Kṛṣṇa outlines the circumstances in which He incarnates himself. It is primarily to establish Dharma, to protect the good and to destroy the wicked. Now we know that in Kaliyuga *dharma* declines precipitately, evil-doers multiply and the good are all the more in need of protection. Hence the stage is set for increasingly frequent divine intervention which has the effect of negating the Yuga theory.[3] It may be recalled here that Rāma did

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ruler can create conditions of Kṛta age in what is popularly held to be Kali" (vide *History of Dharmasastra*, Vol. V, Part II, *op. cit.*, Index p. 267–8).

1 The Bhagavadgītā does not contain any direct reference specifically to the theory of the four Yugas. What it does contain is (1) a mention of Kṛta Yuga (XVIII.13) and (2) of the day and night of Brahmā (VIII 17.19). One might add that Arjuna's misgivings about Varṇasankara in Chapter I seem to echo fears which find a prominent place in Puranic descriptions of the debased Kali age. On the other hand, other Yugas, apart from Kṛta find no mention. The verse from the Gita cited by Anand Swarup Gupta (2.28) contains no mention of the names of the Yugas or the theory of the Yugas ('The Puranic Theory of the Yugas and Kalpas – a Study', *Purana*, July 1969, p. 304). It may be argued that VIII 17.19 implies the Yuga theory (vide Eliot Deutsch, *The Bhagavad Gita*, New York: Holt, Rinehart and Winston, 1968, p. 147). It must be realised, however, that "in its final form, the Hindu system of world-cycles is clearly an imperfect synthesis of more than one independent doctrine" (A. L. Basham, *op. cit.*, p. 321). The presence of one component of the items of synthesis in a text need not automatically imply the whole system.

2 See *Manu Smṛti* I 81–86; also see Mahābhārata Vanaparva, Ch. 188, 190; *Matsyapurāṇa* 144 32–47 etc.

3 The exact expression used in the verse (IV.8) is "yuge yuge." It is capable of two interpretations, a general one and a specific one. If the use of the word Yuga is not taken to automatically imply the whole system of kalpa, manvantaras and yugas then the verse has the meaning that "I come into being age after age" (R. C. Zaehner, *The Bhagavad Gita;* Oxford: Clarendon Press, 1969, p. 184). This general interpretation is the more usual one and in line with Saṅkara's (vide Sankarabhasya on IV.8), which is followed by Swami Nikhilananda, *The Bhagavad Gita*, New York: Ramakrishna-Vivekananda Center, 1944, p. 126. Also see W. D. P. Hill, *The Bhagavadgita*, Oxford University Press, 1928, p. 138; S. Radhakrishna), *The Bhagavadgita*, London: Allen and Unwin Ltd., 1948, p. 155 etc.). If, however, the use of the word Yuga is taken to apply specifically to the four Yugas (a possibility hinted at by Eliot Deutsch, *op. cit.*, p. 147, 150) then the verse has the more restricted meaning of Kṛṣṇa incarnating Himself in each of the four Yugas or perhaps each of seventy-one Maha Yugas.

not flourish in the Kṛta Yuga or the golden age of the four Yuga theory. His golden rule occurred in the Silver age. This clearly contradicts the inevitable character of the general decline of dharma from the apogee of the Kṛtayuga to the nadir of the Kaliyuga. The verses of the Gītā help resolve this contradiction theologically by pointing out the possibility of the suspension of the four Yuga theory through an incarnation or avatāra. Rāma was an avatāra, like Kṛṣṇa. It is clear, therefore, that the Avatāra doctrine provides a kind of a deus ex machina which at least temporarily annuls the consequences of the Yuga theory.

One of the sources cited in support of the theory of the four Yugas was Manu Smṛti (I.61–74; 79–86). In the same Smṛti, however, one finds another verse which has the drastic effect of virtually destroying the theory (XI.301). The substance of the verse, commented on by Medhātithi (Kane 1946:696, 1093 fn. a), is epitomized in the aphoristic conclusion that the king is the maker of the age: rājā hi yugamuchyate. That is to say, the nature of the prevailing age depends on the nature of the king or more generally, on the nature of political arrangements prevailing in a society.

Nor is it fully consistent with the spirit of Smṛti literature to hear pessimistic undertones in the cyclical motion of the wheel of time in Hinduism. The Kali age may be inferior in *dharma* but it is superior in other respects. Its superiority lies in this that the same spiritual merit can be acquired with less effort in relation to the previous ages (Visnu Purāṇa VI.2–36). The outlook is not entirely bleak and dismal, as seems to be the conclusion generally drawn from the theory of the four Yugas (Brown 1966: Chapter III). The use of the legal fiction of Kali-vargya[1] is a case in point.[2] Similarly, ancient inscriptions are full of references to kings who "ushered in the Kṛta Yuga", as it were,[3] thereby

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Both the general and the more specific interpretations, however, imply the fact that divine intervention can neutralise the evil implications of a Yuga.

The relationship between the cyclical notion of time and divine omnipotence in the different religions is of great potential interest to Comparative Religionists. For instance, when Christianity spread over the Roman Empire it supplanted the Graeco-Roman cyclical notion of time with a linear one which embodied the idea of steady progress towards Kingdom Come. The divinity of Christ broke into the cyclical chain as it were, and snapped it, and the idea of Incarnation thus sounded the death knell of the cyclical notion of time. Hinduism, however, never made such a break so that both the ideas of Incarnation and cyclical notion lie side by side in a state perhaps of contradiction, even tension.

1 See Parāsara Smṛti, Adhyāya 1, Śloka 24, 34 and Adhyāya 4, Śloka 30 etc.

2 By the doctrine of *Kalivarjya* customs and practices once prevalent were deemed avoidable in Kali age. The ancient law givers made a creative, if not always progressive use of this doctrine. It was used regressively from a modern standpoint when invoked to ban widow-remarriage or to deny accessibility to Vedic lore to women (A. L. Basham, *op. cit.*, p. 249, 188). But it was used "progressively" when used to abolish levirate for instance (*Ibid.*, p. 176).

3 See D. C. Sircar, *Select Inscriptions Bearing on Indian History and Civilization*, Vol. I, University of Calcutta, 1965, p. 268–9, 309, 316 etc. The Kṛta era is also of interest here. This is how the earliest inscriptions refer to the Vikram era (see A. L. Basham, *op. cit.*, p. 493). Why? Several explanations have been offered. "It has been supposed that the era was invented (kṛta) by astronomers or founded by Krita, (2). C. Sircar, *op. cit.* p. 91; also see

suggesting that Hindu political thinkers perhaps took a somewhat cynical view of the doctrines of the pure traditionalists.

III

It appears, thus, that the description of the Hindu notion of time as cyclical is so lop-sided as to be misleading. It overlooks the fact that the Śruti is almost free of such a notion and it further overlooks the fact that Smṛti literature provides striking exceptions and limitations to this cyclical notion of time. The Hindu notion of time is not a monochrome but a mosaic: it is too complex to be described as merely cyclical. If the Hindu notions of time are so complex that a single description does not suffice, then how is this complexity to be handled?

If the description of the Hindu notion of time as cyclical has to be abandoned on account of its inadequacy if not inaccuracy then in its place a compact conceptual framework for looking at the notion of time in Hinduism must be provided. Such a framework is provided by the realization that the Hindu notion of time tends to vary with the puruṣārtha or the goal of life under discussion.[1] Hinduism recognises four such goals: Dharma,[2] Artha,[3]

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p. 299, fn. 4.) It has also been suggested, however, that the "era" was started to commemorate the victory of the Mālava Republic ... (of which Vikramāditya was the leader) ... against the barbarous Sakas whose expulsion from India freed the country from foreign invasion and inaugurated an era of peace and prosperity which, figuratively, might be regarded as Kṛta Yuga (Golden Age). So the era was first significantly called Kṛta." (Raj Bali Pandey, *Vikramaditya of Ujjayini*, Benaras: Shatadala Prakashana, 1951, p. 5).

1 For a tendency on the part of the Hindu thought to view the notion of time as a variable in relation to the goal of life see Hitopadesa, Introduction, Verse 2, as in Charles Wilkins, trans., *Hitopadeśa* (1787), Florida Scholars Facsimiles Reprints, 1968, p. 18.

The Hindu notions of time in re Dharma, Artha, Kāma and Mokṣa may be gleaned from Dharmasāstras, as also from Arthasāstra, Kāmasāstra etc. There is no Mokṣasāstra as such, but since Hindu philosophy is geared to that end, Darśana literature may be referred to.

2 The Hindu notion of time as it obtains in the discussion of traditional *dharma* is essentially cyclical, though subject to various exceptions as indicated earlier. The expression traditional dharma is used advisedly for two reasons. Firstly, we are talking of *dharma* and not *ṛta*. Ṛta is in Śruti what *dharma* is in Smṛti. The replacement of *ṛta* by *dharma* coincides with the coming together of the nomenclature of gambling and the floating notions of vast stretches of time into the theory of the Yugas. Secondly, the adjective traditional controls *dharma*, which in this context is largely *varṇāśrama dharma*. The prominent fear of Varṇasankara in the Kali age seems to justify this. Even here the severely restricted scope of the theory of the four Yugas may be noted. Hinduism boasts of being the *sanātana dharma* or eternal dharma which does not easily square up with the idea of the fluctuating *dharma* of the four *yugas*!

3 The Hindu approach to time in the field of *Artha* is in the general direction of abandoning the theory of the four yugas in favour of the king being the maker of the age. Thus, Śukra says that "the king is the maker of the age as the promulgator of duties and sins. He is the cause of the setting on foot of the customs and usages and hence is the cause or maker of the times" (quoted in C. A. Moore, ed., *op. cit.*, p. 250). Dhirendra Mohan Datta comments "Śukra holds that instead of submitting to the trends of his age, the king, as the head of the state, should take the initiative in ushering in a new era and should introduce new

Kāma,[1] and Mokṣa[2] and the notion of time varies with the goal involved.[3]

practices. In this Śukra was only making a new application of Manu's idea that the king should be the maker of the age. Whether it be a golden, silver, copper or iron age depends on his initiative" (*Ibid.*, p. 278). C. P. Ramaswani Aiyar (d. 1966) thus recalls seeing the Maharaja of Travancore in connection with the Temple Entry Proclamation as the Dewan of Travancore State, India. "I then saw that monarch who, in *The Code of Manu*, is described as embodying in himself the four ages, was understood by the medieval philosopher Śukra to be the maker of the age, so that if customs, usages and movements are not assimilated to the needs of the times the fault is said to lie with the king himself," (*Ibid.*).

1 The temporal perspective of Hinduism changes again when we come to Kāma, which adds its own flavour to the Hindu notion of time, whether it be defined in the narrower sense of sex or in the broader sense of aesthetic delight. In the context of sex the ideal duration of the creative act is specified as that of a yāma or three hours all told. We do not know whether the Hindu word for art "kalā" is cognate with the Hindu word for time kāla as the etymology of kalā is obscure (vide Monier-Williams, *op. cit.*, p. 261), but notions of time play a key role in Hindu art. Heinrich Zimmer tries to explain Hindu art in terms of the cyclical notion of time. Thus time is symbolised in the dance of Śiva, its "choreography is the whirligig of time" (Heinrich Zimmer, Myths and Symbols etc., *op. cit.*, p. 155). The rhythms of the dance could be linked to the cycles of time, as both the epithets – *Kāla* "Time" or *Mahākāla* "Great Time" and *Naṭarāj* "King of Dancers" are applied to the same god Śiva. Elsewhere Heinrich Zimmer concludes that it "does not lie within the Indian cyclical notion of time to single out any special moment as being all important. Indian art does not immortalise the climax. Its figures are rooted in, while they are supported by time lasting in its own duration" (Some Aspects of Time in Indian Art, *Journal of the Oriental Society of Indian Art*, Vol. I, 1933, p. 37). The temporal aspect of Indian art, however, cannot be straight-jacketed into the cyclical notion of time. Hindu art does commemorate the moment, as in the erotic friezes of Khajuraho where the two senses of the word kāma blend, and in the *mudrās* of Hindu dance. Kairos becomes more important than Chronos (for hints of a similar distinction in Hindu aesthetics see *Nāradaśilpaśāstra* Patha 71, as per text in V. Raghavan, Two Chapters on Painting in Narada Silpa Sastra, *Journal of the Oriental Society of Indian Art*, Vol. 3, 1935, p. 21). Hindu art also sometimes tries to jump time through memory, utilising the fact that memory is the persistence of impressions through time (e.g. as in Jātaka tale Roundels when important incidents distinct in time are portrayed simultaneously on the surface). Thus, in Hindu art as a whole the cyclical notion of time recedes in the background except in perhaps some of its terpsichorean forms. A moment in time, the flow of time, the eternity of time, the relation of time and space – these aspects come in the foreground. While "all traditional art can be reduced to theology" perhaps; but all Hindu art cannot be reduced to a cyclinal cosmology. The concept of time varies with the aspect of art.

2 In Mokṣa the role of time depends on whether you attain it as a "kevalādvaitin" or a "viśiṣṭādvaitin". In the *nirvikalpasamādhi* of the former there is no time or space; but the latter exists in blissful union with God in eternity. The various *darśanas*, orthodox and heterodox, which lead one to Mokṣa have their own notions of time (see S. Dasgupta, *A History of Indian Philosophy*, Vol. 2; Cambridge University Press, 1957, p. 311, 68 etc.). Similarly, different sects, all seeking mokṣa use the notion of time in their own way as did the *darśanas*. Thus, in the Tantric system the "male is identified with eternity, the female with time, and their embrace is the mystery of creation" (Heinrich Zimmer, *The Philosophies of India*, *op. cit.*, p. 62.

3 Nor is this all. Two terminal points may be made: (1) In keeping with the complexity and dynamism involved in the Hindu notion of time it must now be added that as an individual negotiated the various stages of his life – with different ends appropriate for each (Vātsyāyana, *Kāma Sūtra* 1.2.1), his operational notion of time also changed accordingly; (2) The four ends are not watertight compartments and one often finds the notions of time merging

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as the ends dovetail into one another. Thus, Mokṣa cannot be viewed independently of Dharma while one is actively seeking it. In this context the orgies of figures indicating the decline in Dharma over aeons may serve the Mokṣa-oriented purpose of liberating one's perception from the captivity of time or its younger brother history to prepare it for trans-eternity or of creating a disenchantment for the phantasmagorical transitoriness of the phenomenal world (see Heinrich Zimmer's reaction to reading the story he calls the "Parade of Ants", Myths and Symbols etc., *op .cit.*, Ch. I). Similarly, when Mokṣa and Kāma are juxtaposed the accent is on the mystery of mysteries: how did the One become the Many? This was due to Kāma and with Kāma came Kāla. "For the universe is the production of divine will (icchā) or desire (kāma) – the wish of the One to be Many. All spheres of being stand generated and supported by that first creative impulse. On the carnal plane it operates through the mystery of sex; on the highest, it is the will of the Creator. Kāma, therefore, is the first of the gods" – but the youngest too, as born again every day in the meeting and mating of creatures throughout the course of time. Kāma is the power and the process whereby the One begets itself as man, beast or plant and thus carries forward the continued creation of universe. Kāma is the conjunction of eternity and time, through which *that* abundance becomes *this* abundance, and the non-manifest is made manifest in all the beings of the cosmos, from Brahma down to the blade of grass (Heinrich Zimmer, *Philisophies of India*, *op. cit.*, p. 143).

Conception of Time in the Mahābhāṣya

Satya Vrat

Patañjali, the author of the *Mahābhāṣya*, has attributed eternity not only to be Vedas but also to sky, heaven, space and times. According to the Naiyāyikas, the earth, light, water and air are eternal in so far as their ultimate atoms are concerned while the sky, time, mind, the quarters and the soul are eternal in their entirety. Under the Pāṇini rule IV. 2.3 Patañjali expressly states that both time and stars are permanent.[1] He argues that even that thing where the essence is not destroyed is also permanent (*tad api nityaṁ yasmiṅs tattvaṁ na vihanyate*).[2]

Patañjali considers time to be the ultimate substratum of the universe (*kājo hi jagadādhāraḥ*). He regards it as indivisible, permanent, one and all–pervading. He defines time as that whereby the growth and decay of material objects are preceived.[3] It is this which causes the quantitative changes in all objects. Kaiyaṭa makes it clear when he says : Now we see development, now decay in things such as grass, creepers, trees; other causes remaining the same. What this change (*pariṇāma*) is due is time.[4]

The division of time into day and night, months, years cycles, etc. is only an artificial process of calculation; it is by virtue of its conjunction with some action as the movement of the Sun (*kayā kriyayā ? ādityagatyā*),[5]

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1. *nitye hi kālanakṣatre, Mahābhāṣya*, on Pāṇ. IV. 2. 3.
2. *Bhāṣya* under Vār. 'siddhe śabdārthasambandhe'.
3. *yena mūrtīnām upacayāś cāpacayāś ca lakṣyante taṁ kālam āhuḥ tasyaiva kayācit kriyayā yuktasyāhar iti bhavati rātrir iti ca*, on Pāṇ. II. 2. 5. In this Bhartṛhari closely follows Mahābhāṣyakāra, vide his *kārikā* :

   mūrtīnāṁ tena bhinnānām ācayāpacayāḥ pṛthak //
   lakṣyante pariṇāmena sarvāsāṁ bhedayoninā //

   Kālasamuddeśa, Kārikā 13
4. *tarutṛṇalatāprabhṛtīnāṁ kadācid upacayo nyadā tv apacayaḥ, sa pratyayāntaraviśeṣe'pi yatkṛtaḥ sa kālaḥ, Pradīpa* on *Mahābhāṣya* on Pāṇ. II, 2. 5.
5. *Mahābhāṣya* on Pāṇ. II. 2. 5. Bhartṛhari too accepts this view, vide his kārikās :

   tasyātmā bahudhā bhinno bhedair dharmāntarāśrayaiḥ.
   nahi bhinnam abhinnaṁ vā vastu kiñcana vidyate.
   naiko na cāpy aneko'sti na śuklo nāpi cāsitaḥ.

(Continued on next page)

that we say it is day, it is night. In other words it is the movement of the Sun which is the basis of our conception of the so called division of time. Time otherwise is one, eternal and all-pervading.[6]

Bhāṣyakāra recognizes the threefold division of time into present, past and future but sticking to his earlier enunciated view considers it empirical. According to Kaiyaṭa the past, the present and the future are merely particular modes of existence.[7] Hence the future changes into the present and the present changes into the past. By existence Kaiyaṭa means not only real existence but also ideal. It is the tree conceived by the mind and existing in it that is affirmed, denied or produced. Things absolutely non-existent such as the hare's horn are conceived by the mind are referred to by their names. This ideal or conceptual existence appears externally as material existence. If words such as 'a tree' were to express only external existence, then it would do to say 'a tree' and would be redundant to say 'a tree is'. Again it would be a contradiction to say 'a tree is not'. And it would not be reasonable to say as we do 'a sprout has sprung up', for what 'is' cannot be said to be 'becoming'. But once we accept the interpretation of Kaiyaṭa the use of *asti* and *nāsti* has a purpose; it is there to denote the existence; etc. of the thing outside the mind.

But here Kaiyaṭa raises an interesting question: Can we qualify existence (*sattā*) as future existence or past existence? *Sattā* which is derived from the present participle of √*as* 'to be' necessarily implies the present. The existent is necessarily the present in the absolute sense; hence it would be inconsistent to talk of future or past existence. But if it be urged here that the furturity or the pastness of the sub-strata in which existence resides could justify the use of such expressions as future existence; then we say even then existence (*sattā*) would not be present.

(Continued from previous page)

dravyātmā sa tu saṁsargād evaṁrūpaḥ prakāśate.
saṁsargiṇāṁ tu ye bhedā viśeṣās tasya te matāḥ.
saṁbhinnas tair vyavasthānāṁ kālo bhedāya kalpate.

Kālasamuddeśa, Kārikās 6-8.

6. It is interesting to observe here that Nāgeśa Bhaṭṭa, the grammarian-philosopher, does not accept this view of Bhāṣyakāra. To him time is neither one, nor eternal and all-pervading. If time is one, argues he, it would not be possible to account for the diversity of effects produced; hence time must be held to be a stream of moments. Nor can time be maintained to be eternal, all-pervasive, etc., for time is said to be the cause of various actions in so far as it forms their substratum, but unless it is qualified, it cannot be the substratum of such notion as 'now there is jar' and if a qualification of it is to be assumed, then we shall have to assume another determination for that qualification; and still another for the second; and so on *ad infinitum*—*Laghumañjūṣā*, p. 848, Chowkhamba ed.

7. *avasthāviśeṣasyaivātītādisaṁjñā*, *Pradīpa* on *Mahābhāṣya* on Pāṇ.

The Bhāṣyakāra gives a very beautiful answer to all this. He explains the use of the future, past and present with regard to one and the same existent thing on the basis of its conjunction with the senses or absence of it. There are two different actions, one of the senses, the other of the mind. The action of the senses is approach, conjunction or contact. The action of the mind is conceiving. A person anxious to go to Pāṭaliputra says : "On the way to Pāṭaliputra which I am to traverse, there will be a well." When he has reached the well he says : "The well is" when he leaves it behind and proceeds further he says : "The well was." In all this, when we have action of the senses we have the past and the future tenses (with their varieties); when, however, we have the action of the mind, we have the present tense.[8]

Now an objection is raised here with regard to the present in respect of things that have been ever-existing, for, there is no division of time in their case.[9] For instance we should not say : "The mountains stand." But against this, it may be urged that the present which is *nowness* is an antithesis of the past and the future. Since things which have been ever-existing have neither the past nor the future time, the present is there by its very nature and in its own right, and needs no support from any quarter. To this the critic's reply is : These appellations, the past, the future, the present, apply only to things that have an origin. These appellations are explainable only on the basis of origination having a definite limit. Thus things or events are called future, when the means are present and production is expected; they are present, when after origination they persist; and they are past, when after origination they have perished. The appellation present therefore stands between the past and the future. Where there are no past and future, there is no present either ; for the present is antithetical to the past and the future. Since things which are constant have past and future, there is no present, so far as they are concerned. Not only that. Since there is no time division in their case, there is no action, conditioning time. Action is a process which determines time.

To this the Bhāṣyakāra's reply is : Yes, there are time divisions even in their case. The actions of the kings (the motion of the Sun, etc.) past, future and present, are the sub-strata of the mountains. This explains such expressions as the mountains will stand, the mountains stand, the mountains stood.

Again the objector points out that there is little justification for the use of the present tense when an action goes on because of the non-achievement of the principal purpose, but which comes to an end and becomes a

8. *Mahābhāṣya*, on Pāṇ. III. 3. 133.

9. *nityapravṛtte ca kālavibhāgāt*—Vārttika on Pāṇ. III. 2. 133.

thing of the past, as the agent begins some other action or actions. It should not be reasonable to say 'we are living here' 'we are here performing a sacrifice for Puṣyamitra'. The priest, even when he is busy otherwise and is not performing the sacrifice, speaks thus, as he is still intent on performing the sacrifice, for he has not achieved the purpose, viz. the sacrificial fee. The Bhāṣyakāra replies that action is understood to be present, so long as the principal object is not achieved, it does not cease because some other actions which have their own distinct purpose, intervene. Hence the use of the present tense is perfectly justified. But if it be insisted on that there is interruption by the intervening actions; hence, the action is no longer present, but is past, the Bhāṣyakāra says that even if intervention is interruption, the action is present, not past. When we speak of Devadatta as: 'Devadatta eats' we know that while he is eating, he now smiles, now talks and now drinks water. Yet no denying the fact that the action of eating belongs to the present. If interruption does not affect the continuity of action in this case why should it do in other cases?

There is yet another way of showing how other actions coming in between, do not interfere with the continuity of the (principal) action such as eating which therefore goes on in the present. The various intervening actions, such as smiling are no more than parts of the same action, such as eating, since they are secondary and helpful like sipping, etc. And parts do not intercept the whole. Surely Devadatta is not intercepted by his own limbs.[10]

Now the objector turns a thorough sceptic and challenges the very existence of the present. He asserts that there is no such thing as the present time. He argues: Action that is finished is past, and that, not yet finished (or undertaken) is future, but we cannot conceive of anything that is neither finished nor unfinished, there being no intermediate stage. Besides the past and the future, therefore, there is nothing else in between.[11] In other words, action is the state of being effected. In the course of this process the moment that is past, existed and action for that moment was accordingly past; the moment that does not exist, is yet to come and be effected, the action qualified by that moment is future. And there is no such moment as may be both existent and non-existent, for that would be self-contradictory.

Again all action being imperceptible and only inferrable from its outcome is necessarily past and could be denoted only by the past tense. Rightly an intelligent young thinker addresses a crow the question: 'How are we to

10. III, 9. 84.
11. III, 9. 85.

define your flight? Surely *patasi* (flies) cannot be said of your flight in the past, for that is over, nor can it be spoken of your flight in the future, for that too does not exist. The use of *patasi* would be jutsified only if the flight lay in the present. Were it so, we shall have to say that the whole world moves likewise and that the Himālayas too move.[12] That would be indeed absurd.

Then there is a view of the ancients that there is no movement in the world, hence no time including the present. The ancients declare:

The wheel does not move, the arrow is not thrown, the rivers do not flow to the sea, the whole world is motionless and there is no active agent; he who views the state of things thus is also not blind. The idea is repeated in slightly different way : In all the three divisions of time, there is no motion; how then do we say: " He goes. "[13] If it be urged, says the objector, that action is present because it is there as it (action) is a state of being effected, a process, he would say that this too is untenable; for a single thing by itself incapable of differentiation is not possessed of succession, which is action. A thing is or is not. What is, is not to be effected and therefore does not possess succession. What is not, could not in that condition of non-being, be capable of being effected and therefore possessed of succession. Surely a non-existent thing, devoid as it is of all properties, could not have any succession. There being no third category of things, there is no one thing that may be characterized as a state of being effected and therefore possessed of succession. How could it be then present?[14]

Again, if it be assumed that moments possessed of sequence, some prior; others posterior, constitute action and that this action continuing till fruition must be admitted to be in the present, even this assumption would be wrong, points out the objector. For, the parts arising in succession are mutually unrelated; they therefore are not at all simultaneous. It is only one single moment that is perceived to be present, and that being by itself undifferentiated has no succession. Nor can it be urged that many such successive moments are remembered simultaneously, for that is not possible; because we remember as we perceive and not contrariwise; and the one

12. *mīmāṁsako manyamāno yuvā medhāvisammataḥ /*
kākaṁ smehānupṛcchati kiṁ re patitalakṣaṇam //
anāgate na patasi atikrānte ca kāka na /
yadi samprati patasi sarvo lokaḥ pataty ayam /
Himavān api calati /...... Mahābhāṣya on Pāṇ. 3. 2. 123.

13. *na vartate cakram iṣur na pātyate na syandante saritaḥ sāgarāya /*
kūṭastho'yaṁ loko na viceṣṭitāsti yo hy evaṁ paśyati so'py anandhaḥ //
anāgatam atikrāntaṁ vartamānam iti trayaṁ /
sarvatra ca gatir nāsti gacchatīti kim ucyate //

14. III. 9. 86.

moment has not been perceived to possess succession, how could then remembrance give one a notion of succession ?[15]

Remembrance apart, the various moments could not constitute one single action ; for then everything would be both existent and non-existent, but that is not possible. Existence and non-existence, are contradictory and exclusive to each other. To obviate this difficulty, we shall have to assume a common attribute of the different moments and this is that we assume that each one of the moments is able to effect action. But this would mean that there are a number of actions, not one. For what is assumed is that many moments have the common attribute, *kriyādharma*, and not that all of them make one action. Hence the question, how action is present, remains still unanswered.

To all this Bhartṛhari, a close follower of the Bhāṣyakāra, gives the answer in kārikā III. 9. 89. Action consisting of a series of moments is assumed to be one. Moments having a definite succession and arising in pursuit of one definite object are termed action, which is one so long as the object is one. Although the moments are not simultaneous, when one is existent, another is non-existent, still they are present. For by 'present' we do not mean existent, but 'begun and not (yet) finished.' And that is true of that series of moments which continue to arise (and disappear) till fruition and which are unified conceptually. This series of moments alone is capable of producing action. And this is inferrable from its outcome. When an aggregate of moments possessed of its characteristic succession is comprehended as existent, then this existence of it, is its presentness. The upshot of all this is: An aggregate of moments possesses succession. Though it is both existent and non-existent, each one of the moments conceived as mutually related by sequence and therefore existent, is present. True, every moment by itself is not possessed of succession and is, therefore, not action, yet the sequence given rise to by other moments following it, is surely an object of our consciousness; hence there is nothing wrong with it.

The Bhāṣyakāra sums up the case for the present in the following words ; The present does exist. It is not perceived like the motion of the sun. Yet it is there. The five lotus-fibres in the inside of lotus-stalk, when being burnt are not noticed as being burnt, similarly subtle things are knowable only by inference. We use *gacchati* (he goes), for there is action which is present. How ? First, there is mental action, the desire to achieve something. This mental action leads to physical action. Both

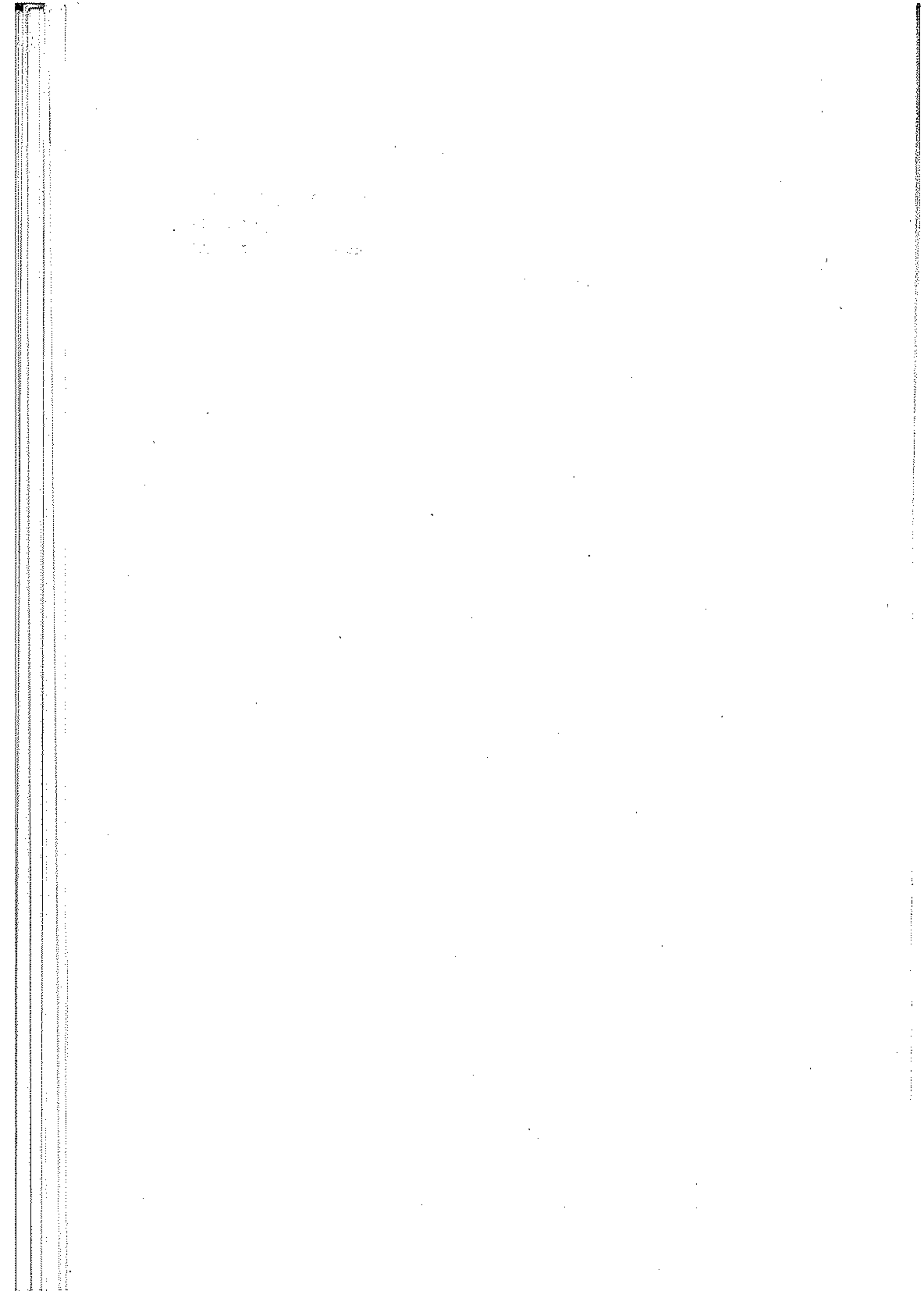
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15. III. 9. 87.

these actions, mental and physical, prior and posterior, ending with the production of the fruit are unified by the mind which has the power of piecing things together and presented as one action. The use of the present tense in *gacchati* is therefore perfectly justified.[16]

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16. *asti vartamānaḥ kālaḥ. ādityagativan nopalabhyate.*
viṣasya jvālā iva dahyamānā na lakṣyate vikṛtiḥ sannipāte.
astīti taṁ vedayante tṛbhāvāḥ sūkṣmo hi bhāvo' numatena gamyaḥ.
kriyāpravṛttau yo hetus tadarthaṁ yad viceṣṭitam.
tatsamīkṣya prayuñjīta gacchatīty avicārayan.
—*Mahābhāṣya* on Pāṇ. 3. 2. 123.



The Concept of Time According to Bhartṛhari

Satya Vrat

Bhartṛhari has discussed time: What it is and how it functions, in Section IX of Kāṇḍa III of his Vākyapadīya. This Section, herein termed the Kāla Samuddeśa contains 114 Kārikās. Of these the first 79 Kārikās deal with the philosophical views held about time by the various schools of thought, and with the nature and function of time as understood by Bhartṛhari himself, and the rest offer well-reasoned justification for the various uses of the tenses in Pāṇini's Grammar, and serve to elucidate the pertinent passages in the Bhāṣya. Before I reproduce here and discuss the various other theories about time recorded by Bhartṛhari, I propose to put down what this great thinker has to say about time, what is his personal view of it, for that must have precedence over others.[1]

SECTION I

BHARTṚHARI'S OWN VIEW

In Kārikā 62[2] of this Section, Bhartṛhari sums up the three recognized views about time. Time is either a Śakti, or an ātman or a devatā. Helārāja, the commentator tells us that time is Śakti is the considered view of Bhartṛhari himself. While

[1] One thing must strike a critical student of the Vākyapadīya, and that is that there is no perfect order in which Bhartṛhari presents the various views about Kāla. Usually a verse or two is read to enunciate a particular view. This is followed sometimes by some discussion on questions arising out of a clarification of it; sometimes it is left severely alone with a summary remark. Bhartṛhari glides along in his own masterly way apparently unmindful of setting in complete order what he says. No link is sought to be established between the various views; they are not presented in a string; they lie scattered here and there. Sometimes it is his view, sometimes another's. But whosesoever it is, it is always supported and never refuted. Thus the Kāla Samuddeśa of his is a veritable repertory of the various theories and views that once held ground and still hold it. (Cp. Kārikās 57, 58 and 68).

[2] Śaktyātmadevatā pakṣair bhinnaṃ Kālasya darśanam.

commenting on III. 9. 14, he refers to the above Kārikā with the words—'ihāpi siddhāntayiṣyati'. He assimilates the other two views to the first, since, to him they seem to conform to the first in the ultimate analysis. I however differ.[1] True it is that to the author of the Vākyapadīya, Kāla is a Śakti, and a Śakti of Brahman. While discussing the nature of Śabda-brahman in Kāṇḍa I. 3,[2] he tells us what he thinks of time.

In his lucid gloss on the said Kārikā, he declares it unequivocally that all other generated, dependent subject-forces are pervaded by Kāla, which alone is independent and follow the operation of this Śakti in their working'.[3]

How this Śakti of Brahman operates and with what results is given in kārikās 3-8 of this Section.[4] We are here told that Kāla is the instrumental cause in the creation, persistence and destruction of all things that have an origin, etc. ... Kāla seems to be itself diversified by the diversity of limiting adjuncts

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[1] To me it appears that Bhartṛhari acknowledges the other two views as independent notions of time, and not as subordinate to his own. The connecting link placed at the head of the Kārikā : 'Now he sums up different views regarding the Reality, time,' also supports my contention. Besides, we find the echo of the view that Kāla is a devatā (a deity) in the Purāṇas. The Kūrma Purāṇa, as quoted by the Vācaspatya (p. 1986), reads : Anādireṣa bhagavān kālo'nanto'jaraḥ paraḥ. Sarvagatvāt svatantratvāt sarvātmatvān maheśvaraḥ. Helārāja, too notes—'anye tu vigrahavatīṁ mahāprabhāvaṁ devatāṁ Kālatvena pratipannāḥ.' Nīlakaṇṭha, commenting on M. Bh. XII. 320. 109, alludes to the view that Kāla is jīva :

Kālovidyākhyaḥ ṣoḍaśaguṇa uktaḥ. tadupādhir jīvaḥ Kālasaṁjñaḥ.

[2] Adhyāhitakalāṁ yasya Kālaśaktimupāśritāḥ |
Janmādayo vikārāḥ ṣaḍ bhāvabhedasya yonayaḥ ||

[3] Kālākhyena hi svātantryeṇa sarvāḥ paratantrā janmavatyaḥ śaktayaḥ samaviṣṭāḥ kālaśaktivṛttimanupatanti.

[4] Utpattau ca sthitau cāpi vināśe cāpi tadvatām |
Nimittaṁ kālamevāhur vibhaktenātmanā sthitam || 3 ||
Tamasya lokayantrasya sūtradhāraṁ pracakṣate |
Pratibandhābhyanujñābhyāṁ tena viśvaṁ vibhajyate || 4 ||
Yadi na pratibadhnīyāt pratibaddhaṁ ca notsṛjet |
Avasthā vyatikīryeran paurvāparyavināḳṛtāḥ || 5 ||
Tasyātmā bahudhā bhinno bhedair dharmāntarāśrayaiḥ |
Nahi bhinnamabhinnaṁ vā vastu kiṁcana vidyate || 6 ||
Naiko na cāpyanekosti na śuklo nāpi cāsitaḥ |
Dravyātmā sa tu saṁsargādevaṁrūpaḥ prakāśate || 7 ||
Saṁsargiṇāṁ tu ye bhedā viśeṣāstasya te matāḥ |
Sa bhinnastair vyavasthānāṁ kālo bhedāya kalpate || 8 ||

(Upādhis) and then diversifies the things in conjunction with it. Hence (being the instrumental cause), Kāla is the string-puller in the dumb show of this world. It is because of the powers of *pratibandha* and *abhyanujñā* that this world comes to possess succession in action. What is the meaning of *pratibandha* and *abhyanujñā* ? Bhartṛhari credits Kāla with these two effective powers. The first means the preventive power and the second, the permissive power. What leads him to imagine that these two powers must belong to Kāla ? If there were no *pratibandha*, so argues he, there would be no order in this universe, no progression or regression ; there would result perfect chaos, all action being simultaneous. Thus a seed, a sprout, a stem and a stalk-all would emerge and exist together. Therefore all objects having origination, though having peculiar causes, must have Kāla as an additional contributory cause for ordered progress.

These two powers, namely, *pratibandha* and *abhyanujñā* correspond more or less to the two powers, 'vikṣepa' and 'āvaraṇa' ascribed to avidyā or māyā by the later writers on Advaita.

SECTION II

EARLIER INTERPRETATION REFUTED

Helārāja refers to some earlier commentators who take Śakti in Kārikā 62 referred to above to mean the generating cause which they say is itself time. Their case may be briefly stated as follows :—

The power called seed, while it permits the appearance of the sprout, prevents the synchronous growth of the stalk. Similarly the power called sprout permits the production of the next effect, while restraining the production of the subsequent effects. Hence the generating cause is itself time.

This is a wrong interpretation and Helārāja convincingly refutes it. He points out that all this is tantamount to saying that particular effects proceed from particular causes, wherever they (causes) are present, and not otherwise. But since those effects take place at a particular time and not at any time, even when the generating causes are there, the additional regulating cause, namely, time, must be acknowledged. The various phases of

existence proceeding from a series of causes have a succession; and this succession is a power of Kāla, the condition of all being.

To Bhartṛhari, Kāla is *one*, it is unitary. It is because of its relation to motions such as of the sun, that Kāla becomes many. The great thinker emphatically declares that things are in themselves neither diverse nor uniform. Time is one (indivisible), yet it appears to have so many divisions. How? The essential nature of a substance is, it has to be admitted, not the object of our parlence; it is inexpressible.[1] When we conceive unity to inhere in it, we say it is one, when we conceive the white or the dark colour to inhere in it, we say it is white or dark; and when we conceive the universal 'cowness' to inhere in it, we say it is a cow; similarly time comes to have the appellations such as the time of origination, the time of persistence, the time of destruction etc., on account of its conjunction with the action of origination etc. The movements of the sun, the planets and the stars which are in conjunction with the time give it the appearance of divisibility; thus the time determined by the sunrise and the sunset is the day, so on and so forth.

If Kāla is one, how do we account for the various time-divisions such as the days, months, seasons and years? This question has been raised and discussed at a number of places in the Vākyapadiya. The author gives an answer to it in Kārikā III. 9.32. The answer is that they are there on account of the diversity of action (kriyā-bheda), in external things. These divisions are superimposed upon time and are not integral to it. They do not affect it at all, they make no change to it. Just as a man becomes a carpenter for the time he is chiselling a piece of wood, and a smith when he is forging a piece of iron, but does not cease to be man or get divided into two men, similarly, time is called spring when there appear symptoms like flowers, a kind of humidity in the atmosphere and the charming cooing of the cuckoo. When there appear other symptoms like the falling off of the leaves of the trees, a kind of forbidding chillness in the atmosphere, a change in the

1 Paropakāratattvānāṁ svātantryeṇābhidhāyakaḥ |
Śabdaḥ sarvapadārthānāṁ svadharmād viprakṛṣyate ||
Vākyapadiya, III. 11. 7.

direction of the sun, we say it is autumn. The spring and autumn are no part of the substance, time. It is a case of an adhyāsa (superimposition).[1]

And, if time is eternal and unchangeable, how is it that we hear of such judgments as: It is good time, it is bad time, the Kṛtayuga is good and auspicious, the Kali is bad and inauspicious? We cannot change time and import external goodness or badness into it. Both goodness and badness are extrinsic to time, they are transferred to it. They originally belong to actions. When good actions are performed, we say it is good time, when bad, we say it is bad time. Time knows no change.[2]

To Bhartṛhari, time, though itself unchangeable is the cause of all change, motion and order. Every object is governed by the power of Kāla. Why the sun rises and sets at regular hours, why the moon shines for the night and not for the day, why the sun moves for six months along the southern path (dakṣiṇāyana) and for another six months along the northern path (uttarāyaṇa), why the planets and stars move in a particular order–all these can only be explained as being due to the all-pervasive and all-powerful nature of Kāla. The coming into existence and passing out of existence, the appearance and disappearance of all objects is caused by time alone.[3]

Other differentiations of time are also unreal; they are merely superimposed. A thing *is not*, before it actually comes into being; *it is*, when it has been created. The mind, however, conceives it as *one* positive existence. When we set about putting together the competent means to the fulfilment of an act, we say it is, Commencement time. When the means thus put together start operating, we say it is Performance time. And when a thing desired to be effected has been accomplished, we say it is closing time.

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[1] Kriyābhedād yathaikasminstakṣādyākhyā pravartate |
Kriyābhedāt tathaikasminnṛtvādyākhyopapadyate ||

[2] Kartṛbhedāt tadartheṣu pracayāpacayau gataḥ |
Samatvaṁ viṣamatvaṁ vā tadekaḥ pratipadyate ||

[3] Ārambhaśca kriyā caiva niṣṭhā cetyabhidhīyate |
Dharmāntarāṇāmadhyāsabhedāt sadasadātmanaḥ ||

Vākyapadīya, III, 9. 33.

But time remains unaltered by these ideal divisions. Says the great thinker; the commencement-time, etc. in the case of a 'dvyaṇuka' (dvad) is exactly the same as that of the Himalayan range. The nature of a thing can neither be altered nor augmented.[1] The meaning is that objects are essentially indivisible (svarupeṇa niraṁśa) wholes, they would indeed be divisible if they were no more than a conglomeration of parts; hence the commencement-time, etc. does not differ. The component parts are quite different from the whole they make. A jar is verily different from the sherds which go to form it. Even the magnitude, a property, is different from the whole. With the difference therefore in magnitude, things need not differ, suffer augmentation or reduction. Hence all produce substances, all wholes being non-distinguishable, it is not because of them that the commencement-time etc. of objects of small magnitude or great differs, but because of properties other than, or additional to, the whole.[2]

How does the commencement-time etc. differ then? The question is answered by Bhartṛhari in the next Kārikā (9.35).[3] It is the parts (different from the wholes) which, if many, account for the greatness of the magnitude of the wholes, if a few, the smallness of the magnitude of them. Accordingly a whole made up of many parts is accomplished slowly, and one made up of lesser parts quickly. Hence in either case, the commencement-time etc. is recognized as different. Since the parts lose their identity in the whole, the whole is designated after the properties of the parts, and not that the time of whole does differ, as a matter of fact

It is further explained in Kārikā (9.36).[4] An object does not exist before origination as already observed. Hence, previous to origination, it being non-existent, it could have no

[1] Yāvāṁśca dvyaṇukādīnāṃ tāvān himavatopyasau ।
Nahyātmā kasyacid bhettuṁ pracetuṁ vāpi śakyate ॥
Vākyapadiya, III. 9. 34.

[2] All this is true only, if we share the view of the Vaiśeṣika that the wholes are distinct from their parts.

[3] Anyaistu bhāvairanyeṣāṁ pracayaḥ parikalpyate ।
Śanairidam idaṁ kṣipramiti teṇa pratīyate ॥

[4] Asataśca kramo nāsti sa hi bhettum na śakyate ।
Satopi cātmatattvaṁ yat tat tathaivāvatiṣṭhate ॥

succession, there being no division into prior and posterior. And even when it has been produced and does exist, it cannot be differentiated, its nature persists; hence there is no succession. Succession, as explained by Helārāja, is based on difference, and difference cannot be there in each separate mode of an object which essentially consists of two modes, existent and non-existent while yet in the process of production. The two modes are pieced together by the intellect and differentiated as prior and posterior. There is first an idea of the non-existent and then of the existent, the succession is otherwise ideal. Hence even the sequence in the produced things is hypothetical; much more so the sequence in time, which is based upon that assumption.

Bhartṛhari repeats the idea at a number of places that Kāla is *Svātantrya Śakti*, as for example in Kārikā 14. He explains how Kāla which is *vibhu* is significantly so called, since it urges all Kālas (Śaktis) by its cycles such as the spring, which are comparable to the revolution of the water-wheel.

The question arises: is this Kāla Śakti identical with Brahman or different from it. The answer is that to the Advaitin (as Hari undoubtedly is), the Śakti and the possessor of Śakti is one entity, not two. The difference is only apparent. The properties (dharmas) are held to be non-distinct from the substance (dharmin). This Hari himself says in so many words in the Brahma Kāṇḍa.[1] The Kashmirian philosopher, Abhinavaguptācārya also subscribes to this view. In his Bodhapañcadaśikā, he remarks that Śakti does not want to be differentiated from the Śaktimat (the possessor of Śakti). They are eternally one, like fire and its consuming power.[2] To be precise, the Kāla Śakti can only be said to be anirukta (undefined).

The conception of the one ultimate reality, be it Śabdabrahman, ātmabrahman, sattā Brahman, or vijñāna brahman led the exponents of advaita philosophy to ascribe to it a power called māyā, ajñāna, avidyā or *Kāla Śakti*, which is unique in its nature and which is capable of projecting this phenomenal world, the *bāhya-*

1 Apṛthaktve'pi śaktibhyaḥ pṛthaktveneva vartate (I. 2)

2 Śaktiśca śaktimadrūpād vyatirekaṁ na vāñchati ।
Tādātmyamanayor nityaṁ vahnidāhakayoriva ॥
Bodhapañcadaśikā (3)

prapanca. Bhartṛhari calls this power by the term Kāla Śakti and avidyā. And like all other Śaktis, the Kāla Śakti too is *anirukta*. This is set forth by Hari himself in his inimitable way in his Vṛtti on 1.4. Says he : 'of the one Brahman that must be assumed to possess Śaktis which can neither be said to be identical with Brahman nor distinct from it, neither existent nor non-existent, which are free from mutual conflict (in so far as they subsist simultaneously in the one substratum) – of the Brahman which is only apparently partite, are the various unreal modifications such as the enjoyer, the thing enjoyed, the act of enjoyment – all of which do not exist externally like the person in a dream-vision '.[1]

SECTION III

DOES TIME REALLY EXIST ?

How do we know that there exists something that is called Kāla (time)? There must be some evidence for it, mere belief in the tradition or scripture would not do. In Kārikā III. 9.46, Hari observes : "This universe which is really devoid of sequence (or succession)[2] seems to have one is indeed due to the working of time". The all-pervasive time operating with its two powers *pratibandha* and *abhyanujñā* is responsible for this notion. But for Kāla, all this Krama would not be explainable. Then the notion of quickness and slowness too are explainable only on the admission that time exists. Just as this distance is long, this is short, is determined by the pace of the person walking and has nothing to do with the space walked over ; for what is far for a slow-moving person is near for another of nimble foot. Similarly though time never varies yet by virtue of an action which has a greater continuity, it comes to be called slow (cira) while another with a lesser continuity gives it the qualification ' kṣipra ' (quick). The idea is that the notions ' cira ' and ' kṣipra ' must have an adhikaraṇa in which they could reside and that adhikaraṇa is Kāla.[3]

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[1] Ekasya hi Brahmaṇastattvānyatvābhyāṁ sattvāsattvābhyāṁ cāniruktavirodhiśaktyupagrāhyasyāsatyarūpapravibhāgasya svapnavijñāna puruṣavadabahistattvāḥ parasparavilakṣaṇā bhoktṛbhoktavyabhogagranthayo vivartante.

[2] Nirbhāsopagamo yo'yaṁ kramavāniva lakṣyate ।
Akramasyāpi viśvasya tat kālasya viceṣṭitam ॥

[3] Dūrāntikavyavasthānāmadhvādhikaraṇaṁ yathā ।
Cirakṣipravyavasthānāṁ kālodhikaraṇaṁ tathā ॥ III. 9. 47.

There is yet another evidence. The question how an action which is over (past) and therefore non-existent could give the appellation bhūta (past) to Kāla is beautifully answered by Hari in III. 9.39.[1] In plain English, the Kārikā means: Things effected by action are called atīta (past), losing their identity (svarūpa). Whatever notion the mind forms of them in the present, they deposit in their stable receptacle, time, and they vanish, since after being perceived, they become objects of recollection, with their Śaktis transferred to the past stage (vyavahāraṁ svāttamanupatanti). The principle of time is cognizable only through the 'upādhis' of the various objects, and they when being recollected transfer their own qualification (pastness) to time. Hence we say there was a jar. This indeed is the logical ground for the existence of Kāla, for if it did not exist, there would be no such usage.

Not only that. In the next Kārikā (9.40) Hari seeks to clarify the use of bhaviṣyat (future) with regard to things. The external form (dṛśyarūpa) of things which are yet to be, viz. things whose 'becoming' is expected when the competent causes of them are present and the image of that external form formed in the mind (vikalpyarūpa) are brought together and unified in the stable receptacle of time whereon futurity is superimposed by the transference of Śaktis. It is because of this qualified time that things are called future or ensuing. But for time, it would not be possible to explain satisfactorily the use of future with regard to things. This is beautifully brought out by a simile: just as it is only after an image has been seen in a spotless mirror, that one becomes sure of the form outside, similarly we see through *Kāla* the real form of things.[2]

That time is an independent entity can also be inferred from the fact of dripping of water from a hole in a jar. This dripping is emphatically declared by Bhartṛhari (vide Kārikā III. 9. 70[3])

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[1] Kāle nidhāya svaṁ rūpaṁ prajñayā yannigṛhyate |
Bhāvāstato nivartante tatra saṁkrāntaśaktayaḥ ||

[2] Bhāvānāṁ caiva yadrūpaṁ tasya ca pratibimbakam |
Sunirmṛṣṭa ivādarśe kāla evopapadyate ||

[3] Pratibandhābhyanujñābhyāṁ nālikāviyatśārise |
Yadambhasi prakṣaraṇaṁ tat kālasyaiva ceṣṭitam ||

to be due to the working of time, and hence constitutes the logical ground for its existence. Helārāja's comments on this Kārikā are elucidating and bear reproduction. 'We observe that only a part of the quantity of water contained in a jar drips at a time from a hole in it and the remaining part does not drip simultaneously with it. What could this be due to.' It is certainly due to the preventive and permissive forces that time possess; for if it were otherwise, the whole, here the water, which permeates all its component parts, must drip all at once, under its one weight. Since there is graduation in the act of dripping, time, a separate entity must be admitted to be at work here and that dripping itself is time must be ruled out. The dripping is only a determination of time. This dripping, itself determined by such acts as winking, movement of the vital airs, the continuous flow of the moments, serves to determine the time which is other than it. Winking, etc., too, is determined by Kāla in its subtle form of succession; hence the power Kāla, known as Krama (succession) is to be found interwoven with all things in a subtle way and cannot be denied.

There is yet another equally cogent reason to believe that time is. How can two actions having a beginning and an end in common, and inhering in two different substrata be differentiated one as quick, the other as slow, unless there be an entity in relation to both the actions at the same time[1]? Now all action is a collection of moments. Since the moments do not exist simultaneously all action is *Sakrama*, possessed of succession, and this cannot but be due to the power of time. Succession is indeed a property of time. It is time that has a succession, and it is because of relation with time that actions appear to have it. Although action is one, yet it is here said to be two because of the two substrata. Hence the notion of cira (slow), kṣipra (quick) is not because of the unity of action. Because even when the substrata differ, we have the same notion of the one as of the other; for we say: "The jar is formed late, the cloth is fashioned late". It should not have been possible, for there were

[1] Kriyayorapavargiṇyor nānārtha samavetayoḥ |
Sambandhinā vinaikena paricchedaḥ katham bhavet ||
III. 9. 27.

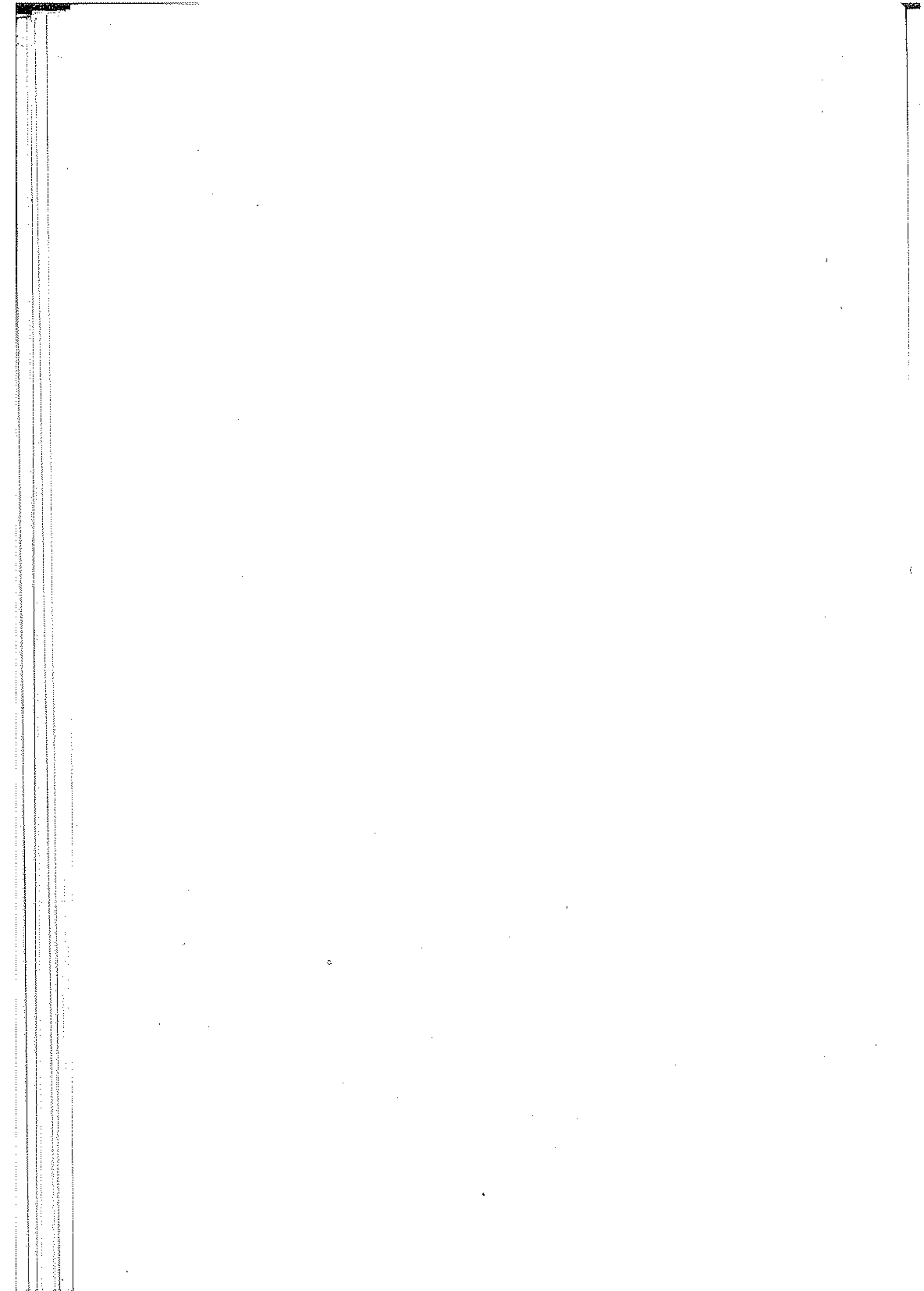
two actions inhering in two different substrata, the jar and the cloth. Nor can it be due to the produced things (jar and cloth), for they, being different cannot be the cause of the common notion. Nor again can it be due to the agent, for that too differs with different things. Hence that something to which the notion is due is Kāla. This Kāla has to be *one*, in order that it may produce the common notion even when actions and things differ.

Granted that time being one, could well determine two different actions and give us the common notion: the jar is produced late, the cloth is produced late, but how could it, being one, give us two distinct notions such as: it is done soon, it is done late? To this Bhartṛhari's reply is recorded in Kārikā III. 9.28.[1] This he explains on the analogy of a balance. As a balance, though one, determines the varying weights of gold, silver, etc., similarly time, though one, comes to have manifoldness by virtue of the powers inherent in it and determines uninterrupted action diversified by such distinct operations as winking. Or time, the absolute time, determines action as soon, or late, quick or slow, just as the hand of the practised adepts determines a particular weight. As the hand is competent to weigh by reason of the skill born of practice, time is capable of measuring the difference in actions by virtue of its own inherent power.

The Vaiśeṣika has his own way of inferring the existence of time. This is set forth in a number of Kārikās (III. 9. 16-22). The Kārikā 22 says that as objects depend upon causes, material, instrumental and others for their production, so do they depend upon a cause for their existence. The meaning is that an object which is produced, is artificial, is from its very nature perishable and would perish as soon as it is produced, if it is not sustained by a cause. And that sustaining cause is time. This argument of the Vaiśeṣika becomes clearly understandable when we keep in view the fact that to the Vaiśeṣika the whole is different from the parts of which it is composed. So it cannot be urged that a piece of cloth (the whole) is sustained by the hundreds of threads of which it is made.

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[1] Anityasya yathotpāde pāratantryaṁ tathā sthitau |
Vināśāyaiva tat sṛṣṭamasvādhīna sthitiṁ viduḥ ||



Die Zeit als Schicksalsgottheit in der Indischen und Iranischen Religion (Kāla und Zruvan)

J. Scheftelowitz

Inhalt.

I. Die Zeit als Schicksalsgottheit in der indischen Religion.

1. Der Einfluß der Astrologie auf die indische Weltanschauung.

Wo die Astrologie zu einem festen Bestandteil der Religion geworden ist, sehen wir allmählich Schicksalsgottheiten erstehen. Die Verwertung der Sternenkenntnis zur Deutung und Erschließung der Zukunft findet sich weder in den Veden noch in den Brāhmaṇa. Die Auffassung, daß die Planeten teils günstige teils ungünstige Vorzeichen den Menschen übermitteln, begegnet man zuerst im Atharva-Veda (VI 110, vgl. Withney-Lanman I p. 360; XIX 7—8, T. S. IV 4, 10; T. Br. I 5, 2). Der Mensch ist im Brāhmaṇa-Zeitalter im großen und ganzen noch frei von dem Glauben an den überwältigenden Einfluß der Gestirne auf das Geschick des Einzelmenschen. Von einer Technik, die Zukunft aus den untrüglichen Sternen ergründen zu wollen, von einem mit dem Sternenhimmel verwachsenen Schicksalsglauben ist dort keine Spur zu entdecken. Zuerst tritt der ausgeprägt astrologische Glaube in den Gṛhya- und Dharmasūtren auf. Spätestens ist er mit Alexander d. Gr. von Babylonien nach Indien gelangt, denn bereits in kanonischen Büchern des Buddhismus ist er zu belegen. So wird dort erwähnt, daß der Astrologe (Nakkhattapāṭhaka) das Horoskop stellt (nakkhattam ādisati, Mahāniddesa 323, ferner Peta Vatthu III 5, 4: nakkhattayogaṃ uggaṇhāti).[1]

Gemäß den Gṛhyasūtren müssen alle wichtigen Handlungen unter einem günstigen Sternbild vorgenommen werden. So fängt man zu pflügen an unter den Nakṣatra Rohiṇī, Uttara

1) Vgl. auch Jātaka Nr. 289.

proṣṭhapada oder Phālgunī (Śāṅkh. Gṛ IV 13, Āśv. II 10, 3). Der Veda-Unterricht beginnt unter dem Nakṣatra Śravaṇa oder Hasta (Pār. Gṛ II 10, 2; Āśv. III 5, 2 f., Yajñavalkya I 142, Manu 4, 95). Den Unterricht beendet man unter dem Nakṣatra Rohiṇī (Pār. II 12, 1, Baudh. II 8). Unter den Mondhäusern Uttarā phalgunī, Uttarāṣāḍhā und Uttara Bhadrapada sowie unter Svātī, Mṛgaśiras und Rohiṇī soll man heiraten (Pār. I 4, 6 f., Āp. I 3, 2 ff.). Der Hochzeitstag wird durch Astrologen berechnet (Daṇḍin, Daśakumār. p. 21, Bombay 1883). Der junge Ehemann zeigt am Hochzeitsabend seiner Frau den Polarstern Dhruva, wobei sie an diesen Stern folgendes Gebet richtet: „Der Stern Dhruva bist du, möge ich fest (dhruvā) werden in dem Hause meines Gatten" (Gobh. II 3, 8 f., Khād. I 4, 4). Zehn Tage nach der Geburt des Kindes opfert man dem Planeten, „unter dem es geboren ist" (yasmin jātaḥ Śāṅkh. I 25, 5, Gobh. II 8, 12). Das neugeborene Kind erhält neben einem geheim zu haltenden Namen [1]) noch einen anderen, der Bezug auf das Nakṣatra hat, das bei seiner Geburt in aufsteigender Periode begriffen war (Hiraṇyak. II 1, 4, 13, Bharadvāja I 26, P. Mantegazza, Indien 1885, 55). Man kann unter einem günstigen oder ungünstigen Gestirn geboren werden (Kauś. S. 46, 25). Wer Glück erstrebt, bringt ein Opfer den Planeten dar (Grahayajña, Yājñav. I 294 f.). „Welcher Planet (Grahaḥ) einem ungünstig (duṣṭaḥ) ist, den soll man andächtig verehren" (Yājñav. I 306). „Von den Planeten hängt ab der Könige Erhebung und Fall, das Sein und Nichtsein der Welt; deshalb sind sie besonders zu verehren" (Yājñav. I 307). „Alles, was hier Schönes und Unschönes in der Welt zu schauen ist, das stammt aus dem Mond, den Nakṣatra, Planeten und dem Jahr" (Maitr. Up. VI 16). Einen Feldzug soll der König nur unter den Mondhäusern Mārgaśīrṣa, Phālguna oder Caitra unternehmen (Manu VII 182). Der König unterhielt einen Astrologen, der das Horoskop stellte (Gaut. XI 15, Kauṭ. Arth. XIII 1). Dieser

1) Diesen erhält der Neugeborene am 10. oder 12. Tage unter einem glückverheißenden Gestirn, an einem glückverheißenden Zeitpunkte (Manu II 30: Puṇye tithau muhūrte vā nakṣatre vā guṇānvite).

Glaube an den unentrinnbaren, auch das sittliche Leben vorausbestimmenden Sternenzwang, der eigentlich in Widerspruch stand zu der indischen Lehre, gemäß der Heil oder Verdammung des Menschen allein vom Karman seines vergangenen Lebens abhängt, ist daher anfänglich von einzelnen Schulen bekämpft worden (vgl. Manu III 162; VI 50, Vas. X 21, Bloomfield S. B. E. XLII Intr. p. I). Allein die Astrologie hatte allmählich im indischen Volksglauben derart feste Wurzeln geschlagen, daß sie sanktioniert wurde und sich aus ihr allmächtige Schicksalsgottheiten entwickelten [1]). Dieses sehen wir vor allem in den beiden größen Epen. Ausdrücklich wird dort betont, daß die Kenntnis der Astrologie (kālajñānagati) vom Ṛṣi Garga herstammt (M Bh IX 37, 15). Der weise Bhīṣma erklärt, er habe die Astrologie (nakṣatragati) studiert (M Bh XII 201, 8). Die Söhne des Śrutarāṣṭra waren in der Astrologie bewandert (kālavṛddhāḥ M Bh V 2, 16). Der König ist von Astrologen (kālajñāḥ bzw. Mauhūrtaḥ) und „Schicksalserforschern" (daivacintakās) (M Bh II 5, 85; XII 121, 46) umgeben. Letztere sollten das Gesetz des Fatums erforschen, um ihm durch Riten entgehen zu können. Das Nakṣatram, „unter dem man geboren ist" (yasmin jāto bhaven naraḥ), ist von bleibender Bedeutung (M Bh XIII 104, 128). „Man sieht viele Personen, deren bedeutendes Nakṣatra ihnen Glück verleiht" (bahavaḥ saṃpradṛśyante tulyanakṣatramaṅgalāḥ M Bh III 209, 21). Bei der Geburt wurde durch einen Astrologen das Horoskop gestellt (Mark. Pur. CXXII 3 ff.; XXXI 22). Es kam vor, daß ein unter einem unglücklichen Stern geborener Prinz verbannt wurde (Saṃkhyasūtra, Komm. IV 1). Alle wichtigen Unternehmungen, Handlungen und religiösen Zeremonien finden unter einer günstigen Konstellation (nakṣatre puṇye) statt wie z. B. unter Magha, Rohiṇī oder Bhagadaivata statt (M Bh VII 66, 10; XIV 64, 15; II 25, 4; I 208, 2; 143, 33; I 8, 14; Mark. P. LXXV 55 ff. In M Bh XIII 64 u. 89 (vgl. Mark. P. XXXIII 9 ff.) werden die 28 Nakṣatrāṇi aufgezählt, unter denen

1) Über Astrologie vgl. zuletzt M. Winternitz, Gesch. d. Ind. Lit. III 44. 566 ff., v. Negelein ZDMG 1928, 1 ff.; derselbe in Festgabe für H. Jacobi 1926, p. 440 ff. und Arch. R.W. 26, 241 ff.

Spenden an Brahmanen und ferner die Manenspende (Śrāddham) von heilvoller Wirkung sind.[1]) Aus der Stellung der Planeten erschloß man die Art des Ausgangs eines wichtigen Unternehmens (M Bh VII 66, 10). Erscheint Saturn (Śanaiścara) mit dem Nakṣatra Rohiṇī, so gibt es bald ein großes Unglück (mahadbhayam) M Bh VI 2, 30. Von unheilvoller Bedeutung ist es, wenn z. B.

a) Venus (Śveto grahaḥ) an Nakṣatra Citrā vorbeischreitet (VI 3, 11);

b) der Komet Dhūmaketu zum Sternbild Puṣya schreitet (VI 3, 12);

c) Mars (Aṅgāraka) zum Sternbild Magha und Jupiter zum Śravaṇa vorschreitet (VI 3, 13);

d) Venus (Śukra) mit Saturn (Sūryaputra) zum Nakṣatra Bhaga heranschreitend, verfinstert wird (pīḍyate), oder wenn Venus zum Pūrva Proṣṭhapada aufsteigend, erglänzt (VI 3, 14);

e) Venus (Śveto grahaḥ) am Uttarapada vorbeigehend, aussieht wie ein mit Rauch versehenes Feuer (VI 3, 15);

f) das Mondhaus Aindra sich dem Mondhaus Jyeṣṭhā nähert oder der Polarstern Dhruva sich von rechts nach links bewegt (VI 3, 16);

g) Mond und Sonne (Śaśibhāskarau) das Nakṣatra Rohiṇī verdunkeln oder Rāhu zwischen den Mondhäusern Citrā und Svāti steht (VI 3, 17);

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1) Diese lauten dort: 1. Kṛttikāḥ, 2. Rohiṇī, 3. Somadaivata (bzw. Mṛgottama), 4. Ārdrā, 5. Punarvasu, 6. Puṣya, 7. Aśleṣāḥ, 8. Maghāḥ, 9. Phalgunī Pūrvā, 10. Phalgunī Uttarā, 11. Hasta, 12. Citrā, 13. Svāti, 14. Viśākhā, 15. Anurādhā, 16. Jjeṣṭhā, 17. Mūla, 18. Pūrvā Aṣāḍhāḥ, 19. Uttarā Aṣāḍhāḥ, 20. Abhijit, 21. Śravaṇa, 22. Dhaniṣṭhāḥ, 23. Śatabhiṣā (bzw. Vāruṇa). 24. Pūrvabhādrapadā (bzw. Pūrvaproṣṭhapadā), 25. Uttarabhādrapadāḥ (bzw. Uttaraproṣṭhapadāḥ), 26. Revatī, 27. Āśvinī, 28. Bharaṇyaḥ, vgl. auch A. V. XIX 7—8, ferner Kirfel, Kosmogr. p. 36. Nach Manu III 273 f. möge man den Manen am 13. Tage unter dem Sternbilde Maghās Milchreis mit Honig und Butter spenden. Über die Dreizehn im Altindischen vgl. Scheftelowitz, Arch. f. Rel. W. 1926.

h) Mars (Lohitāṅga) das Nakṣatra Brahmarāśi verhüllend, feurigstrahlend das Nakṣatra Śravaṇa umkreist (VI 3, 18);

i) Die Planeten Venus und Mars (Bhṛgusūnudharāputrau) in Verbindung mit Merkur (Śaśija) sichtbar werden (IX 11, 17); [1])

k) Jupiter und Venus (Gurubhārgavau) zusammen erscheinen (Utsarjanaprayopa WZKM 1928, 64);

l) Meteore zur Erde herabfallen (VI 3, 34; 113, 9).

Leuchten in der Geburtsstunde eines Kindes die Planeten Jupiter, Venus, Mond und Merkur herab, so ist dieses für das neugeborene Kind ein glückverheißendes Omen (Märk. P. CXXII 4 ff.). Der Eintritt aller wichtigen Ereignisse in der Welt wird durch Planeten angedeutet. Als das Tretā-Zeitalter inbegriff war, zu Ende zu gehen und die damals lebenden Wesen sterben sollten, begann der Planet Jupiter (Guru) in entgegengesetzter Richtung sich zu bewegen, und der Mond (Soma) ging den südlichen Weg (MBh XII 141, 15). Am Ende des Kāli-Yuga sind die Sternbilder (Nakṣatrāṇi) und Sterne (jyotīṃsi) in umgekehrter Ordnung (pratikūlāni) MBh III 190, 76 f. Ebenso wie die Pitaras nehmen Sonne, Mond, Planeten, Sternbilder lebhaften Anteil an dem Geschicke der Menschen (I 208, 26; VI 120, 119). [2]) Da die Menschen mit den Planeten in enge Beziehung gesetzt worden sind, werden

1) In Babylonien bedeutet es ebenfalls Unglück, wenn Venus sich Mars nähert oder Merkur neben ihr steht (Jastrow, Rel. Babyl. u. Ass. II 631, 634, 648 ff.). F. X. Kugler, Sternkunde I 161 ff. hat nachgewiesen, daß die indische Astronomie von Babylonien beeinflußt sei. Die babylonische Gleichung, 391 synodische Jupiterumläufe = 427 siderische Sonnenjahre, findet sich genau so in einem der ältesten Siddhāntas, von dem wir nur fragmentarische Kenntnis haben, wieder, vgl. auch Kugler, Im Bannkreis Babels p. 120.

2) Auch im astrologischen Werk Bṛh. S. wird stets der Zusammenhang der Gestirne mit den Ahnen betont (v. Neglein, Arch. R. W. 26, 267). Derselben Vorstellung begegnen wir in Persien und Armenien, vgl. Scheftelowitz ZJJ IV 327. Auch im urisraelitischen Glauben war er vorhanden, vgl. Ri. 5, 20: „Vom Himmel herab stritt man für uns; die Sterne stritten von ihren Bahnen gegen Sisera.“

erstere zuweilen mit ihnen auch verglichen (VI 72, 20). So gleichen zwei miteinander kämpfende Helden den Planeten Mars und Merkur (Aṅgārakabudhau VI 45, 41; VIII 15, 16), die Helden Duśśāsana und Prativindhya den Planeten Merkur und Venus (VII 169, 34 f.). Der die Feinde niederschmetternde Daṇḍadhara gleicht dem verhängnisvollen Planeten Ketu (VIII 18, 5) und sein alles niedertretender Elefant dem „Rade der Zeit“ (VIII 18, 7). Als Held Śalya sich Yudhiṣṭhira näherte, ähnelte er dem in der Nähe des Mondes befindlichen Saturn (Śanaiścara IX 16, 10).

2. Die Entwicklung des Fatums aus der Astrologie.

Die Astrologie tritt nicht nur als eine Art Wissenschaft auf, sondern stellt wegen ihrer als unfehlbar geltenden Voraussagungen der zukünftigen Schicksale auch ein Religionssystem dar, das ebenso wie in Iran und Griechenland auch bei den Indern die Idee des unabwendbaren, allmächtigen Fatums erzeugt hat, welches den Wesen Gaben und Kräfte, Schuld und Leiden austeilt. In der vedischen Religion ist dieser Glaube noch völlig unbekannt. In den Epen treten uns zum ersten Male zahlreiche synonyme Bezeichnungen für das allmächtige Fatum entgegen wie Diṣṭam, [1] Daivam, Vidhi, Vidhāna, Bhāgadheyam, [2] Bhavitavyam. [3] Zunächst hat einen gewissen Einfluß auf die Entstehung des Begriffes „Schicksal“ die in den Upaniṣaden ausgeprägte Lehre von den wie ein Naturgesetz eintretenden Folgen des Karman ausgeübt. Daß das Geschick (Daivam, Diṣṭam) die „Frucht des Karman“

1) Vgl. I 205, 5. In VS XXX 7 hat diṣṭam noch nicht die Bedeutung „Schicksal“, sondern es ist die aus dem Karman hervorgehende göttliche Bestimmung. Dort kommt Diṣṭam in folgender Aufzählung vor: Askese (tapas), Schönheit (rūpam), Schmuck (śubh), Ziel (śaravya), Geschoß (heti), Handlung (karman), Bestimmung (diṣṭam), Tod (Mṛtyu), Beendiger (Antaka). Daß das Schicksal ursprünglich als von den Göttern herrührend gedacht wurde, lehrt der Ausdruck daivam „das von den Göttern Herrührende“, womit später das Fatum bezeichnet wurde.

2) Vgl. MBh IX 2, 29 ff., 56, 4.

3) Vgl. Hopkins, Epic Mythology p. 73 f., MBh XV 3, 54.

(karmaphalam) ist, wird an verschiedenen Stellen betont (MBh III 32, 32; 208, 21; XIII 6, 7—49). Diese ältere Auffassung, daß das Schicksal des Menschen eigentlich von seinen Willenshandlungen, seinem Karman, bedingt ist (vgl. Bṛh. Ār. Up. 4, 4, 5), spiegelt sich im Yājñavalkya I 350 wieder: „Denn wie durch ein einziges Rad der Gang des Wagens nicht zustande kommt, so geht ohne eine Handlung des Menschen das Schicksal (daivam) nicht in Erfüllung[1]". Gemäß der Sāṃkhya-Lehre, die Bhagavadgītā 18, 13 f. erwähnt, treiben 5 Faktoren den Menschen zu einer Tat: Der Körper, die Seele, die verschiedenartigen Organe, die verschiedenen besonderen Bewegungen und das Schicksal (daivam). Die erst in den Epen auftretende Vorstellung, daß Götter und Menschen von unerbittlichen Schicksalsgottheiten geleitet und gerade durch sie zu heilvollen und unheilvollen Taten getrieben werden, daß Schicksalsgötter das Schicksal hervorrufen (daivaṃ vidhinirmitam III, 273, 6), hat sich unter dem Einfluß der Astrologie entwickelt. Alles geschieht auf Veranlassung des Fatums (daivayoga VII 24, 2. 4 ff.; 86, 3, Bhaviṣya P. III 33, 13, vgl. MBh XV 10, 36: sarvaṃ daivakṛtam, daiverita bzw. kālacodita).[2]) Vom Geschick angespornt (vidhicoditā) treibt Sitā den Rāma an (III 278, 18). „Von des Schicksals Macht veranlaßt (daivabalat kṛtaḥ), beschimpft ein Freund den anderen" (VI 107, 30). Alles in dieser Welt geht vonstatten und gelingt nur durch das Daivam (III 235, 23; VII 145, 30 f., 10, 12; VIII 31, 23, Bhag. G. XVIII 14, Mārk. Pur. 23, 26, Rām. 3, 69, 20). Die Frau ist dem Manne ein vom Schicksal bewirkter (daivakṛta) Freund (VI 122, 29). Der Rākṣasa Kirmira ruft aus: „Durch glückliche Fügung (diṣṭyā) ist mir dieses schon seit langem Erstrebte heute hier durch

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1) Dieser Satz findet sich auch in Hitop. Einl. Vers 32, woran sich noch folgendes Zitat anschließt: pūrvajanmakṛtaṃ karma tad daivam iti kathyate.

2) MBh I 8, 16 f.; VIII 37, 9; VII 11, 40; 24, 2; 114, 12. 26; VIII 96, 54; 92, 12; II 49, 57; 76, 8; X 63, 7; XII 104, 22; 177, 10. 12 f., vgl. auch II 17, 40: vidhānabalacoditaḥ „von des Schicksals Macht veranlaßt"; VI 84, 3; XII 231, 51.

das Geschick (daivam) zugefallen" (III 11, 28). Das Schicksal (daivam) kann weder überwunden (IX 65, 30), noch durch Heldenkraft abgewehrt werden (daivaṃ na śakyaṃ hi puruṣeṇātivartitum XIII 29, 19), denn „das Fatum ist das stets mächtigere" (diṣṭaṃ balīyaḥ XII 104, 22; I 87, 8, bzw. daivaṃ tu balattaram VIII 31, 27, vgl. VII 152, 22). König Duryodhana, der im Kampfe unterlegen ist, erkennt schmerzlich: „Das Fatum (Daivam) beschützt die Pāṇḍavās und vernichtet uns" (VII 92, 12). Mittels des Fatums (daivam) hat Yudhiṣṭira den Bhīṣma besiegt (VI 122, 29). Vom Fatum (vidhi) rührt alles Unglück her (V 8, 52; XV 10, 32). „Das Schicksal (Daivam) führt alles aus; was vom Schicksal getroffen ist (daivahatam), wird erschlagen" (Rām. VI 113, 23). Die Götter stehen ihm machtlos gegenüber. Indra, welcher beabsichtigte, Kāṇḍava vor dem Untergange zu bewahren, vermag seine Absicht nicht auszuführen, „als er erkannt hatte, daß der Untergang Kāṇḍavas vom Fatum bestimmt worden sei" (diṣṭaṃ cāpy anupaśyaitat kāṇḍavasya vināśanam I 226, 22). „Der Knoten des Fatums ist eben nicht aufzulösen" (diṣṭasya granthir anivartanīyaḥ I 196, 2). Daß in der jüngeren Sanskritliteratur das Fatum (daivam, diṣṭa, vidhi, niyati) eine große Rolle spielt, dafür zeugt z. B. Daṇḍin, Daśakumāracarita (ed. Bombay 1883) p. 77: prasanno dya bhagavān vidhiḥ „gnädig ist heute das ehrwürdige Schicksal", p. 11: vidher ānanam „des Schicksals Rachen"; p. 61: na hi alam atinipuṇo pi puruṣo niyatilikhitāṃ lekhām atikramitum „nicht vermag nämlich ein sehr geschickter Mensch die vom Schicksal geschriebene Schrift zu übertreten"; p. 5: daivatantraṃ duḥkayantraṃ samyag anubhūya „das Lehrbuch des Schicksals, das das Unheil bändigt, genau befolgend". p. 76: rāja diṣṭadoṣād . . . baddhaḥ „der König wurde durch des Schicksals Schuld gefangen"; p. 16: daivayogena „durch des Schicksals Fügung"; p. 6: daivānukūlyena „durch des Schicksals Gunst"; p. 5: prabalena daivabalena „durch des Schicksals allgewaltige Kraft"; p. 3, 4: daivagatyā „durch des Schicksals Lauf"; p. 140: citreyaṃ daivagatih „wunderbar ist dieser Lauf des

Schicksals"; p. 105: eṣa me patis tavapakarta na veti daivam eva jānāti „ob dieser mein Gatte dir Böses getan oder nicht, weiß nur das Schicksal". Das Fatum ist, weil der Mensch vor ihm zittert, unter die Unheilsgötter eingereiht worden. Gleich hinter dem Herrscher der Unterwelt Yama und dem Todesgott Mṛtyu folgen nach Rām. III 69, 20 Kāla und Vidhi. In dieser Rāmāyaṇa-Stelle wird Kāla ‚die Zeitgottheit' mit Vidhi ‚Schicksal' zusammen genannt.

Den festen Glauben an das allmächtige Fatum besaßen vor allem die Kṣatriyās und die breiten Massen des Volkes, was sehr deutlich aus Viśākhadatta's Mudrārākṣasa (ed. Hillebrandt) hervorgeht. Gerade die Fürsten sind dort von diesem Glauben völlig durchdrungen. Candragupta ist überzeugt, daß die Nanda-Dynastie durch das ihr feindliche Geschick (vidveṣiṇā daivena) vernichtet worden sei (p. 93). Am Schluß des 4. Aktes sehen wir, wie König Malayaketu sein Geschick mittels eines Astrologen aus den Gestirnen zu erforschen sucht. Sein Kanzler Rākṣasa, der die Vernichtung des Nanda-Geschlechts gleichfalls auf „das mitleidlose Geschick" (akaruṇayā niyatyā) zurückführt (p. 41), ruft aus: „Geschlagen sind wir eben von dem Schicksal" (daivena vayam eva hatāḥ; ähnlich p. 57: vayam evopahatā daivena). Gegenüber der Allgewalt des Schicksals gesteht er seine Ohnmacht ein: „Was sollen wir, deren tatkräftiges Wirken sogar das uns gehässige Geschick gleichsam zunichte macht, hier tun! . . . Das Schicksal ist nämlich der Feind des Nanda-Geschlechts und nicht jener Brahmane Cāṇakya . . . Der Verstand des vom Fatum Geschlagenen ist freilich ganz verkehrt" (kim iha karavāma sthiram api prayatnaṃ no yeṣāṃ viphalayati daivaṃ dviṣad iva... daivaṃ hi nandakulaśatrur asau na vipraḥ... daivenopahatasya buddhir athavā sarvaṃ viparyasyati). Ebenso bemerkt ein Untergebener des Rākṣasa (p. 52): „Hier liegt die Willenshandlung des Schicksals vor (daivasyātra kāmacāraḥ), was ist hier zu tun?" Im 1. Akt von Kṣemīśvara's Caṇḍakauśika spricht die Königin Saibhyā von der „Macht des Schicksals, dem man nimmer trauen darf"; ebenso betont dort der König, der im 5. Akt das Schicksal

mit einer grausigen Schlange vergleicht: „Was das Schicksal gebietet, das muß geschehen“ (im 3. Akt) und „des Schicksals Ausspruch ist schwer zu übertreten“ (im 4. Akt). Gerade in der höfischen Literatur wie z. B. in dem für die Prinzenerziehung geschriebenen Tanträkhyäyika und in den von den Sütäs der Könige verfaßten Epen Mahäbhärata und Rämäyaṇa spielt die Schicksalsgottheit eine bedeutende Rolle. Hingegen haben die gelehrten, auf die Tradition sich stützenden Brahmanen der Schicksalsmacht nicht eine so allgewaltige Stellung eingeräumt. So betont der gelehrte Brahmane Cāṇakya (im Mudrārākṣasa p. 93): „Das Schicksal halten die Unwissenden für die höchste Autorität“ (daivam avidvāṃsaḥ pramāṇayanti). Diese Auffassung bringt dementsprechend auch Gott Brahman zum Ausdruck (M Bh XIII 6, 49. 29): „Die vereinte Hilfe des Schicksals und der Mannestat ist wirksam.“ „Das Schicksal benachteiligt nicht denjenigen Mann, der Karman und Rechtlichkeit aufzuweisen hat.“ Die Existenz von Schicksalsgottheiten wird aber selbst von den Brahmanen nicht bestritten.

3. Die ältere philosophische Kāla-Spekulation.

Unter dem Einfluß der Astrologie sehen wir gerade Kāla „die Zeit“ sich zur allmächtigen und furchtbaren Schicksalsgottheit erheben, die jedoch dem einen göttlichen Urprinzip untergeordnet ist. Unabhängig von der Astrologie hat der Zeitbegriff frühzeitig schon zu philosophischen Spekulationen Anlaß geboten. Im Ṛgv. (I 164,11 ff.; IV 13,4) findet sich die Vorstellung vom „Zeitenrad“ und dem „Gewebe der Zeit“ (vgl. auch A. V. X 7,42; 8, 4, 37).[1] In den Anfängen des Upaniṣad-

[1] Ausführlich wird diese Vorstellung in MBh I 3, 141—143 behandelt: „Die 360 Einfügungen in der Mitte des festen, aus 24 Abschnitten zusammengesetzten Rades gehen ständig; 6 Jünglinge drehen es. Und 2 Mädchen, die schwarzen und weißen Fäden ständig drehend, mit denen der Aufzug eines Gewebes gewebt wird, bringen ununterbrochen hervor Wesen und Welten“. In I 3, 160 wird die Erklärung hiefür gegeben: „Die beiden das Stück Zeug webenden Frauen sind die Gottheiten Dhātar und Vidhātar. Die schwarzen und die weißen Fäden sind die Nächte und Tage, und das 12speichige Rad und die 6 Jünglinge, die das 12speichige Rad drehen, sind das Jahr und die 6 Jahreszeiten“. Wenn

Zeitalters, in denen mancher grübelnde Geist über das eine Urprinzip brütete, tauchte das Problem auf: Wann hat die Zeit begonnen? Haben die Gottheiten erst in der Zeit oder schon vor der Zeit existiert? In ersterem Falle ist die Zeit älter als die Gottheiten, demnach der Vater der Gottheiten und identisch mit Brahman. Dieser philosophische Gedanke tritt zuerst im apokryphen Buche des A. V. (XIX 7 und 8) auf (vgl. auch Cūlika-Up. 12, Māṇḍūkya Kārikā 1, 8, Maitrī Up. 6,14). Eine etwas jüngere Spekulation hat jedoch der Urgottheit Brahman die Existenz vor der Zeit, also die Zeitlosigkeit, zugesprochen und, sie in Zusammenhang mit der ersteren Idee bringend, behauptet: „Wahrlich, es gibt 2 Formen des Brahman, nämlich die Zeit und die Zeitlosigkeit. Was vor der Sonne da war, das ist die Zeitlosigkeit, das Nichteinteilbare, und was mit der Sonne anfing, das ist die Zeit, ist das Teilbare" (dve vāva brahmaṇo rūpe kālaś cakālaś cātha yaḥ prāg ādityāt so kālo kalo tha ya ādityādyaḥ sa kalaḥ sakalaḥ, Maitrī Up. 6,15). Also Brahman personifiziert einerseits die Zeit, andererseits die Zeitlosigkeit. In diesen philosophischen Upaniṣad-Texten tritt Kāla weder als Schicksalsgott noch als Schicksal auf, sondern wird ebenso wie Manas, *Puruṣa* (Kaṭh. 3,11) oder die Silbe Oṃ als das Urprinzip alles Seins, als das Brahman hingestellt.[1])

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es in V. 141 vom 24speichigen Rade die Rede ist, so kommt es daher, weil dort die Monatshälften gezählt worden sind. Nach III 134, 13 bilden die 6 Jahreszeiten das Kālacakram „Rad der Zeit". „Das zeitenthaltene Rad" (kālamayaṃ cakram) wird ferner in Bhav. Pur. 148, 9—14 behandelt. Auch in der arabischen Poesie findet sich das Bild von der Zeit, die allein Aufzug und Einschlag webt (vgl. W. Caskel, Das Schicksal in der altarab. Poesie 1926, 50). Über die griechische Vorstellung von den Moiren, die als Spinnerinnen des Schicksals und der Lebensfäden mit der Spindel dargestellt werden, vgl. Roscher, Lex. d. Griech. u. Röm. Myth. II_2 3086 f.; ferner Augustin, Contra Fortun. XX_9: Die 3 Schicksalsgottheiten sind am Rocken, die mit der Spindel und den Fingern den Wollfaden spinnen und die 3 Zeiten „Vergangenheit, Gegenwart und Zukunft" andeuten. Über die späteren Zeitspekulationen in Indien vgl. F. O. Schrader, über den Stand der ind. Philosophie 1902, 17 ff., 60 ff.

1) Vgl. Scheftelowitz ZDMG. 75, 203 ff.

4. Kāla als Schicksalsgottheit.

Der Zeitbegriff konnte sich schon aus dem Grunde unter dem Einfluß der Astrologie leicht zur Schicksalsgottheit entwickeln, weil für jede wichtige Handlung die günstige Zeit erkannt werden muß, ferner in der Zeit alles entsteht, sich entwickelt und durch die Zeit alles vergeht, während die Zeit selbst ständig dahinrollt. Dafür einige Beispiele: Purastāt tu kāle manaḥ kurvita „zuvor möge man auf die richtige Zeit seinen Sinn richten" (Śāṅkh. Śr. 2, 7, 5 Komm.).[1] „Die Zeit zerrt alle verschiedenartigen Geschöpfe mit sich. Wie der Wind die Spitzen der Gräser zerknickt, so kommen die Wesen unter den Willen der Zeit (kālavaśam)" MBh XI 9, 14 f.; XII 153, 43. „Die Zeit läßt alles erstehen und bringt es dann zur Reife" (XII 224, 39). „Mit der Zeit (kālena) treten die unerwünschten und erwünschten Dinge hier an alle Geschöpfe heran. Kälte, Hitze sowie auch Regen stellen sich ein mit der Zeit" (XII 28, 32. 34). „Selbst wenn man Anstrengungen macht, erwirbt man nichts, sobald die Zeit zum Erwerben noch nicht da ist" (XIII 163, 2), denn „die mannigfaltigen Handlungen gehen mit der Zeit vonstatten" (XII 139, 48). „Dem Gesetze der Zeit anheimfallen" bedeutet „sterben". „Nach langer Zeit fiel er dem Gesetze der Zeit anheim" (kālena mahatā paścāt kāladharmam upeyivan I 72,60). Der Mensch ist „an die Zeit gebunden" (kālabandhana), während die Zeit selbst „unendlich" (ananta) und „unermeßlich" (aprameya) ist (III 35, 1). Im rollenden „Rade der Zeit" sind nicht nur alle Zeitabschnitte, sondern auch die Sternbilder und Planeten, die Verkünder der menschlichen Geschicke, enthalten. „Die Zeitteile wie Kalās, Kaṣṭhās, Muhūrtās, die Tage, Halbmonate, Monate, Sternbilder (nakṣatrāṇi), Planeten (Grahās), sowie auch

1) Ferner Hiraṇyak. Gṛ. S. I 12, 4: vaha kālam vaha śriyam „führe herbei die günstige Zeit, führe herbei das Glück"; Tantrākhy. (J. Hertel) p. 120 V. 74: „Da die günstige Zeit (kāla) nur einmal zu dem Manne kommt, der auf sie wartet, so ist sie ein zweites Mal schwer von dem zu erlangen, der ein Werk tun will".

die Jahreszeiten und Jahre sind miteinander verquickt: so rollt das Rad der Zeit dahin mit dieser Einteilung der Zeiten" (IV 52, 1—2).[1]) „Die erhabene Zeit, das vom Schicksalsgott geschaffene Schicksal (daivaṃ vidhinirmitaṃ) und die Fügung (bhavitavyam) wird den Wesen zuteil" (III 273, 6). Zeit und Schicksal hängen also eng zusammen, denn alles Erschaffene ist eben der determinierenden Macht der Zeit unterworfen.

Kāla steht seit der epischen Periode auch in enger Beziehung zur Astrologie, worauf schon die Namen für „Astrologie" (kālajñāna IX 37, 15) und „Astrolog" (kālajña II 5, 85; V 2, 16, kālatantrakavi Weber J. St. XV 284f.) hinweisen. Die Zeit als Schicksalsgottheit ist aus der Astrologie erwachsen. Der Zusammenhang Kāla's mit den Planeten und Gestirnen geht aus verschiedenen Stellen unzweideutig hervor. „Kāla ist der Sohn des Polarsterns, der Fortbeweger der Welt" (dhruvasya putraḥ kālo lokaprakālanaḥ, MBh. I 63, 21).[2]) Kāla wird daher mit den Planeten gleichgestellt. „Die Himmelsgegenden, Kāla, die Sonne, die leuchtenden Himmelskörper, Planeten (Grahas), Vāyu, Wasser, die Gestirne (tārakās) sind von Śiva" (XIII 14, 202). In XIII 16, 49 f. wird Śiva nicht nur mit den Sternbildern, Planeten, dem Polarstern und dem Siebengestirn (Saptarṣayaḥ), sondern auch mit Kāla identifiziert (vgl. auch XIII 17, 38). Der Brahmane Dhaumya, der (ähnlich Maitrī Up. 6, 16) die Sonne (Sūrya) für das eine göttliche Urprinzip erklärt, setzt sie mit 108 Gottheiten[3]) gleich, von denen die

1) Die 2 weiteren Verse IV 52, 3—4 enthalten eine interessante Angabe über das Schaltjahrsystem: „Wegen des Überschusses an Zeit und dadurch, daß die Sterne einen Vorsprung gewinnen, sind in jedem 5. Jahre zwei Monate angewachsen; dadurch sind innerhalb 13 Jahre 5 Monate und 12 Nächte (= Tage) überschüssig".

2) Ähnlich Matsya P. 5, 23; Padm. P. I 6, 23: Dhruvasya kālaḥ putras tu; Brahm. P. II 3, 22, Vā P. 66, 22: Dhruvaputro . . . Kālo lokaprakālanaḥ (vgl. Kirfel, Purāṇa p. 175. 212).

3) Wenn es in der jungen Muktikā Up. (ed. Jīvananda Vidyāsāgara, Calcutta 1872) V. 28 heißt: „Doch die 108 Upaniṣads (ed. Vāsudeva L. Paṇaśīkara, Bombay, 1925) lese man, wenn man beim Tode Erlösung

ersteren lauten: Sūrya, Aryaman, Bhaga, Tvaṣṭar, Pūṣan, Arka, Savitar, Ravi, Gabhastiman, Kāla, Mṛtyu, Dhātar, Prabhākara,

wünscht", videhamuktāv icchā ced aṣṭottaraśatam paṭha), so stammt diese Zahl, die dort Rāma dem Hanumān mitteilt, sicherlich aus obiger MBh-Stelle. Die Zahl 108 spielt in der tantrischen Literatur eine große Rolle. Dort hat „die große Göttin" 108 Namen. In den buddhistischen Dhāraṇī, in der die Zahl 108 eine apotropäische Wirkung hat, hat der zum Japa gebrauchte Rosenkranz 108 Perlen (vgl. J. W. Hauer, Die Dhāraṇī, 1927, 4. 8). Die hier in MBh u. Maitr. Up. 6, 16 belegte Auffassung, daß die Sonne das eine göttliche Urprinzip sei, scheint wohl unter Einfluß des syrischen Sonnengott- und Mithraskultes, der sich ja seit der Mitte des 2. Jahrhunderts n. Chr. weithin verbreitete, entstanden zu sein. Daß die zum Buddhismus übergetretenen zarathustrischen Saken Ōhrmazd als Sonne auffaßten (vgl. E. Leumann, Maitreya Samiti p. 166 ff.), weist ebenfalls darauf hin. Im Bhaviṣyapurāṇa, in welchem sich das griechische Lehnwort horā (= gr. ὥρα) findet (vgl. II 102, 5, 2 horājñapti „die Wissenschaft des Horoskops"), wird die Sonne von Viṣṇu als der Urgott angebetet (I 136, 70 f.). Nur diejenigen erlangen den höchsten Himmel, die sich mit Inbrunst an Sūrya, den höchsten Götterherrn wenden (I 174, 34: ye bhaktyā devadeveśaṃ sūryaṃ śāntam ajam prabhum iha loke sukham prāpya te gatāḥ paramam padam). „Nicht möchte ein Mann teilhaftig werden der Erlösung von den Banden des Dharma, Artha und Kāma, der nicht den leuchtenden, finsternisbannenden Sūrya anbetet" (I 174, 6: yo na pūjayate sūryaṃ bhāskaraṃ tamaḥsūdanam, dharmārthakāmamokṣāṇāṃ na naro bhājanaṃ bhavet). Wohl durch die in II 102, 5, 2 erwähnten Saken (Śākās) wird die iranische Bezeichnung Mihira für Sonne (I 80, 51: Sūryo mihiraḥ) aufgekommen sein. Daß um 500 n. Chr. Gott Mihira zahlreiche Verehrer hatte, beweisen die Namen des um jene Zeit lebenden Hunnenkönigs Mihiragula und ferner des Astronomen Varāhamihira. J. W. Hauer, Dhāraṇī, hält das Eindringen des Mithraskultes in Indien im 2. Jahrhundert n. Chr. für möglich. Als Urprinzip trägt Sūrya 1000 Namen im Sūryasahasranāmavali (Ms. Brit. Mus. 26, 441). Als oberster Gott ist er der Herr über Kāla und heißt er daher in letzterem Ms, das ich demnächst veröffentlichen werde, Kālaśraya, Kālakartar, Kālanāśana. Im Sāmbapurāṇa wird der Sonnengott Āditya als die höchste Gottheit gefeiert, von der das gesamte Weltall herstammt und zu der es nach seiner Vernichtung zurückkehrt (vgl. Catalogue of the Sskr. Mss of the India Office VI Nr. 3619 p. 1317). Die Sūryopaniṣad feiert Sūrya gleichfalls als das einzige Urprinzip: Tvam eva pratyakṣaṃ karmakartāsi, tvam eva pratyaksaṃ brahmāsi, tvam eva pratyakṣaṃ viṣṇur asi tvam eva pratyakṣam rudro si.

Erde, Wasser, Energie (tejas), Luftraum (kha), Vāyu, Parāyaṇa, Mond (Soma), die Planeten Jupiter (Bṛhaspati), Venus (Śukra), Merkur (Budha), Mars (Aṅgāraka), ferner Indra, Vivasvan, Śuci, der Planet Saturn (Sauri Śanaiścara), Brahma, Viṣṇu, Rudra, Skanda, Varuṇa, Yama. Im weiteren wird noch der Komet Dhūmaketu genannt (MBh III 3, 15 f.). Hier werden also Kāla und die Planeten als vollwertige Gottheiten aufgezählt. Auch Manu I 24 weist auf den engen Zusammenhang der Zeit und der Astrologie hin: Nachdem nämlich der Weltenschöpfer (Svayaṃbhū) die Welt, die Götter und die Veden geschaffen hatte, „schuf er die Zeit, die Zeiteinteilungen, die Mondhäuser und Planeten" (sṛjat . . . kālaṃ kālavibhaktīś ca nakṣatrāṇi grahāṃs tathā). Zeit und Astrologie sind untrennbar mit einander verknüpft.

Kāla erscheint einerseits als die Gottheit des Fatums, andererseits auch als das Fatum selbst, was aus folgendem Beispiel klar hervorgeht: Held Bhīṣma erlegt mit unzähligen Pfeilen die Feinde „wie das in einem Momente von Kāla geschaffene Fatum" (kālo yathā kālakṛtaḥ kṣaṇena VI 86, 22). In diesem Satze kommt Kāla in den beiden Bedeutungen vor, als Gebieter des Fatums und als Fatum selbst. Die Macht dieses Schicksalsgottes, der alle Wesen mit sich reißt (XII 322,1) und zugleich das Schicksal selbst ist, wird in MBh I 1, 248—252 geschildert: „Wer kann abwenden durch die Vorzüglichkeit seines Verstandes das Schicksal (daivam)? Niemand kann außerhalb des Pfades wandeln, der vom Schicksalsgott (vidhātar) vorgezeichnet ist. Existenz und Nichtexistenz, Freude und Kummer, dieses alles wurzelt in Kāla. Kāla erschafft alle Dinge und Kāla rafft sie alle dahin. Kāla überwindet wiederum das alle Geschöpfe dahinraffende Fatum (Kāla). Kāla macht alle Existenzen, die guten und die bösen, in der Welt. Kāla zerstört alle Geschöpfe und Kāla erschafft sie wieder. Kāla allein wacht, wenn alles schläft. Kāla, der stets Gleichbleibende, Unaufhaltsame, kommt zu allen Dingen." Ausdrücklich wird hervorgehoben, daß Kāla machtvoller ist als das Fatum (Daivam, Rām.

3, 64, 74; MBh XII 33, 15). „Auf Kālas Anordnung (kālayogena) entstand Feindschaft unter ihnen; heimgesucht durch das Schicksal (daivam) bin ich bekümmert" (MBh XIII 12, 37). Vidhi „das Fatum" und Daivam „das Geschick" unterstehen dem Gehorsam Kāla's. „Das Los (Daivam) wird einem durch das von Kāla beauftragte Fatum zuteil" (Vidhinā kālayuktena MBh I 121, 19). Kāla und Daivam (bzw. Vidhi) stehen also in innerem Zusammenhang. „Das Geschick ist freilich mächtig und Kāla unüberwindlich" (aho tu balavad daivaṃ kālaś ca duratikramaḥ). Zuweilen wird aber Kāla in demselben Sinne gebraucht wie Daivam, Vidhi und die übrigen Begriffe für „Schicksal". So steht z. B. in MBh III 157, 38: kālopahatacetasaḥ „dessen Sinn Kāla hart mitgenommen hat", dafür aber im darauffolgenden Vers Daivenavinivārita „vom Schicksal gehemmt". Sehr klar geht dieses auch hervor aus MBh XII 28, 18—24: „Reichtum und Armut, Annehmlichkeit und Unannehmlichkeit sind eine Folge des Geschicks" (arthānarthau sukhaṃ duḥkam vidhānam anuvartate). Sitz, Lager, Fahrzeug, hohe Stellung, Speise und Trank werden stets allen Wesen eben durch Kāla zuteil (āsanaṃ śayanaṃ yānam utthānam pānabhojanam, niyataṃ sarvabhūtānāṃ kālenaiva bhavanty eva). Vornehme Geburt, Kraft, Gesundheit, schöne Gestalt, glückliches Dasein (saubhāgyam) und Genuß wird durch die Fügung (bhavitavyam) erlangt. Daß Arme viele Kinder, Reiche gar keine Kinder haben, ist die sonderbare Handlungsweise des Fatums" (vicitraṃ vidhiceṣṭitam). Hier ist Kāla identisch mit Vidhāna, Vidhi und Bhavitavya.

Kāla wird als eine mächtige Gottheit geschildert. Er ist unergründlich (gambhīra XII 224, 19), grenzenlos; „von keiner Seite wird das jenseitige oder diesseitige Ufer des Kāla erspäht" (XII 224, 21). Er ist unsichtbar (kālaḥ sa ca na dṛśyate XII 137, 22) und „der Herr über das All" (sarvasya hi prabhuḥ kālaḥ XII 153,44). „Dem Kāla ist niemand lieb und niemand verhaßt, und nicht ist er irgendwie unparteiisch" (na kālasya priyaḥ kaścinna

d v e ṣ y a ḥ, n a m a d h y a s t h a ḥ k v a c i t k ā l a ḥ XI 2,23), er steht im offenbaren Gegensatz zu Kṛṣṇa (Bhag. G. 9, 29 = MBh VI 33, 29), welcher betont: „Ich bin allen Wesen u n p a r t e i i s c h, niemand ist mir verhaßt und niemand lieb" (s a m o'h a m s a r v a b h ū t e ṣ u n a m e d v e ṣ y o s t i n a priyaḥ). „Kāla verleiht Förderungen und Hemmungen zu jeder Zeit; indem er in die Vernunft der Wesen eindringt, ruft er Gesetz und Gesetzlosigkeit hervor" (XIII 164, 2). Er vernichtet die Autorität des Gesetzes (k ā l o h i ṃ s a t e d h a r m a v ī r y a m XIII 94, 10). „Wessen Sinn von Kāla heimgesucht ist, wird verwirrt und pflichtvergessen" (IX 63, 45; VI 59, 100; vgl. VII 89, 15). Die sich widersprechenden Gedanken sind von Kāla hervorgerufen (X 3,7). Bei der Allgewalt des Kāla hört also jede menschliche Verantwortung auf, da ja der freie menschliche Wille ausgeschaltet ist. Das Erwerben und Aufspeichern von neuem Karmaṇ hängt nicht mehr von der freien Tat des Menschen ab. Willkürlich schaltend „fügt Kāla ständig Glück und Unglück den bekörperten Wesen zu" (k ā l o n i t y a m u p ā d a t t e s u k h a ṃ d u ḥ k a ṃ c a d e h i n ā m XII 139, 50 f.).[1]) Alle Handlungen und Erfolge der Menschen, sowie die Vorgänge der Natur sind nur von Kāla hervorgerufen (k ā l a c o d i t a XII 278, 17; XIII 1, 50 f.; I 8, 16 f.; II 77, 43; III 107, 30; XII 224, 25; VII 24, 2; XVI 1, 13; Rām. 3, 31, 47), so der Auf- und Niedergang der Sonne (XII 339, 74), das Wehen der Winde, das Fallen des Regens, das Blühen der Pflanzen, die Zunahme des Mondes (XII 25, 8—9), das Entstehen der Wesen aus den 5 Elementen (XII 274, 4 f.). Kāla durchkreuzt die Pläne der Menschen. „So beschaffen ist Kālas Macht, daß er das Gegenteil einer beabsichtigten Sache

1) Ausdrücklich heißt es in Tantrākhy. (J. Hertel) p. 36 V. 115: „Kāla spielt (mit den Geschöpfen) wie mit Spielsachen, die er nach Belieben hin- und herwirft, mit Löwen, . . . mit Elephanten, . . . Schlangen . . . mit Gelehrten, indem sie in rettungsloses Elend verfallen, mit Helden, indem sie vom Schicksal vernichtet werden"; daselbst p. 62 V. 9: „Kāla, dessen vorgestreckter Arm Unglück enthält, packt (uns) auch aus der Ferne." Im 3. Akt vom Mudrārākṣasa p. 93 spricht der Brahmane Cāṇakya zum König: „Besessen von Kāla, entflammst du wieder das Feuer meines Zornes" (p a r ī t a ḥ k ā l e n a j v a l a y a s i p u n a ḥ k o p a d a h a n a m).

bewirkt“ (II 81, 11). Durch Kāla werden Helden und Könige schwach (XII 224, 38; XIII 1, 81). Auf seine Veranlassung ist der Feind auf die Beilegung der Feindschaft bedacht (kālaparītaḥ sa vairasyoddharaṇe rataḥ XII 6, 8). Trotzdem er als Schicksalsgott eine überwältigende Macht über die Geschöpfe hat, hat er anfänglich in der offiziellen Religion durchaus nicht zu den höchsten Göttern gehört.

5. Die Einreihung Kālas unter die Unterweltsgottheiten.

Da dieser vorbeistreichende Kāla den Untergang der Geschöpfe bewirkt (atikramati kāle smin sarvabhūtakṣayāvahe XII 175, 1), gehört er zu den Unheilsgöttern. In der bekannten Parabel vom Manne im Brunnen „ist die gewaltige Schlange (mahāhis), die auf dem Brunnengrunde lagert, Kāla, der Beender aller bekörperten Wesen“ (kāla eva saḥ, antakaḥ sarvabhūtānāṃ dehinām XI 6, 8). Durch Kāla fallen die Mannen in der Schlacht (XIII 12, 33). Deshalb heißt das Geschoß, womit König Marutta die Bösen im Kampf erlegt, Kālāstra „Geschoß des Kāla“ (Märk. P. CXXXI 17 ff.). „Kāla nimmt nach dem Gesetze des Zeitenwandels die Seelen der bekörperten Wesen an sich“ (MBh XII 33, 16). Kāla ist also unter die todbringenden Götter eingereiht worden, was auch aus XII 15, 16 ff. deutlich hervorgeht. Dort heißt es, daß die todbringenden Götter von den Menschen mehr gefürchtet und angebetet werden als Brahman, Dhātar oder Pūṣan. Als todbringende Gottheiten werden dann folgende fünfzehn aufgezählt: Rudra, Skanda, Indra, Agni, Varuṇa, Yama, Kāla, Mṛtyu, Vāyu, Kubera, Sūrya, die Vasavas, Marutas, Sādhyās und Viśvadevās.

Diese hier vorliegende Reihenfolge Yama, Kāla, Mṛtyu kennzeichnet gleichzeitig die Rangordnung dieser 3 Götter. Kāla ist Yama untergeordnet, dagegen Mṛtyu dem Kāla.[1] In den Epen wird Mṛtyu stets von Kāla gesandt (VII 88, 15). Dieses zeigt uns noch besonders klar MBh XII 199, 28—31.

1) Kāla's wachsende Stellung läßt sich in den Epen deutlich verfolgen. In Rām. III 69, 20 steht noch Kāla hinter Mṛtyu.

Zu einem frommen Asketen, dessen Lebenszeit abgelaufen ist, kommt zuerst Yama, der König der Unterwelt, der ihm für seine frommen Werke einen hohen Lohn ankündigt. Dann erscheint Kāla, der ihm mitteilt: „Deine Zeit ist da, in den Himmel zu steigen, ich, die Zeit, habe dich erreicht.“ Hierauf naht sich Mṛtyu dem Asketen mit den Worten: „Von Kāla bin ich veranlaßt worden, o Weiser, dich von hier wegzuführen“ (kālena coditas tvām ito netum adya vai). An verschiedenen Stellen hebt Mṛtyu ausdrücklich hervor, daß er nur auf Geheiß des Kāla den Tod eines Menschen verursache (XIII 1, 50; XII 33, 15). Diese Rangstellung des Kāla kennt bereits Baudh. Dharm. 2, 5, 9, 11. Dort heißt es: „Ich opfere (tarpayāmi) dem Yama, Yamarāja, Dharma, Dharmarāja, Kāla, Nīla, Mṛtyu, Mṛtyumjaya, Vaivasvat, Citragupta, Audumbara.“ Daß hier unter den 10 Beinamen Yama's Kāla und Nīla erscheinen, beweist, daß diese Stelle des Baudh. Dh. sehr jung ist (vgl. S. 29 f.). Hier sehen wir, daß Yama dem Kāla vorangeht und ihm Mṛtyu folgt. In den Purāṇas steht Yama vor Kāla, vgl. Bhav. Pur. II 102, 19, 44: „Sonne, Mond, Yama, Kāla und die 5 Elemente, diese neun sind hier die Zeugen des schönen und unschönen Karman“ (sūryaḥ somo yamaḥ kālo mahābhūtāni pañca ca, ete śubhāśubhasyeha karmaṇo nava sākṣiṇaḥ). Unter den Göttern, die die Göttin Caṇḍikā ausstatten, befinden sich ebenfalls Yama und Kāla. Auch hier steht Yama voran, er gibt derselben einen schwarzen Stab (kāladaṇḍa[1]), alsdann erst schenkt Kāla ihr Schwert und Schild (Märk. P. LXXII 22 f.). Kāla geht regelmäßig dem Mṛtyu voran, weil letzterer ihm untergeben ist (MBh XIII 1, 65. 68). So werden in MBh VI 64, 61 der Rākṣasa Haiḍimba und König Bhagadatta, die miteinander kämpfen, verglichen mit Kāla und Mṛtyu. Kāla's Tier ist die Krähe (kāka, Mārk. P. c. LI, 68), seine Schwester die Furcht (Bhayā, Rām. 7, 4). Ebenso wie

1) Bereits in ŚBr XI 6, 1, 7 und 13 ist Yama mit dem Kāladaṇḍa versehen. Der schwarze Stab Yamas wird auch MBh I 9, 22 erwähnt. Kāla ist wohl in Anlehnung an Kāladaṇḍa, das ja auch „Kāla als Strafmittel habend“ übersetzt werden kann, dem Yama untergeordnet worden.

Yama, Mṛtyu und die anderen Unheilsgötter[1]) ist Kāla mit einer Schlinge versehen (kālapāśa MBh XVI 5, 10, XVII 1, 3; Rām. 3, 53, 20, Kādambarī II 74, 7; kālasūtra MBh III 157, 45; Ram. VII 22, 23[2]). Gemäß dem Viṣṇudharmottara steht der mit dem Pāśa versehene Kāla zur Linken Yama's, dagegen Citragupta, der Schreiber Yama's, zur Rechten Yama's (vgl. T. A. Gopinatha, Elements of Hindu Iconography, Madras 1914, II 527). Dem Kāla untersteht auch Antaka (vgl. MBh X 8, 73: kālasṛṣṭa iväntakaḥ). Im Vāyupur. I 32, 11 wird Kāla als viergestaltig (caturmūrti) und viergesichtig (caturmukha) dargestellt.

Der ihm übergeordnete Yama (= Dharmarāja) vermag Kāla's Schicksalsschläge ein wenig abzuschwächen. So tritt Ruru's Braut, von Kāla veranlaßt (kālaconditā), beim Spiele auf eine giftige Schlange. „Diese Schlange, von dem Willen der Zeit veranlaßt (coditaḥ kāladharmaṇā), ließ ihre mit Gift gefüllten Zähne in den Fuß jenes sorglosen Mädchens eindringen," so daß sie starb. Dem Ruru, der über den Tod seiner Braut unsäglich klagte, erscheint ein Götterbote und teilt ihm mit, daß Dharmarāja (= Yama) unter der Bedingung die Braut wohl wieder zum Leben erwecken werde, wenn er ihr die Hälfte der ihm zugemessenen Lebensdauer abtreten würde, so daß sie, deren Leben nun einmal abgeschlossen ist, dann eigentlich nur von seinem Leben zehrt. Als Ruru darin einwilligte, wurde seine Braut wieder lebendig (MBh I 8, 16 f.; 9, 11 ff.).[3])

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1) Vgl. Scheftelowitz, Die Altpers. Religion u. d. Judentum 92 ff.

2) Bei Manu III 249; IV 88 und in den Purāṇas ist Kālasūtra die Bezeichnung für eine Hölle (vgl. Kirfel, Kosmogr. 351), wofür auch Kṛṣṇasūtra und Tamas steht.

3) In der Sāvitrī-Episode (MBh III 296—297), die zu den ältesten Teilen des MBh gehört, spielt das Fatum noch keine Rolle. Dort holt sich Yama selbst die Seele des Menschen und zieht sie mit seiner Schlinge (pāśa) in die Unterwelt; und er vermag auch die bereits eingefangene Seele wieder freizugeben, so daß der Tote wieder zum Leben erwacht (vgl. auch Kāṭh. Up. 1, 10 f.) In Kāṭh. Up. (c. 1) ist noch Yama, Antaka und Mṛtyu eine und dieselbe Person, vgl. ṚV. X 165, 4: „Diesem Yama, dem Todesgott (Mṛtyu) sei Verehrung." In Hir. Gṛ. I 6, 5 wird Antaka als besondere Gottheit angeführt neben Gada („Krankheit"), Yama und Vaiśvānara. Dagegen ist in Mārk. P. 10, 77 Antaka dem Kāla gleichgestellt, indem beide zu der engeren Umgebung Yama's in der Unterwelt gehören.

6. Die jüngere Spekulation, daß Kāla nicht von Yama, sondern von Karman abhängig ist, ja geradezu Karman personifiziert.

Einer viel jüngeren Spekulation gehört die Vorstellung an, daß Kāla nicht von Yama, sondern von Karman abhängig ist. Das von Kāla herrührende Schicksal muß zugleich den Folgen des Karman entsprechen. Hierdurch ist Kāla erst mit den Ideen der offiziellen Religion in Einklang gebracht worden und ein fester Bestandteil der indischen Religion geworden. Diese Idee tritt uns vom 12. Buche des M Bh ab entgegen. Kāla ist „der Austeiler der Frucht der (früheren) Zeit" (viddhi kālaṃ kālaphalapradam XII 33, 19; vgl. auch 33, 22: karmaṇā kālayuktena). „Von Kāla veranlaßt, wird man, verbringend die festgesetzte Zeit in Hölle und Himmel, mit der Zeit, die dem Karman entspricht, immer wieder geboren" (XII 278, 18, vgl. auch XII 121, 25—33). Das Abhängigkeitsverhältnis des Kāla von Karman veranschaulicht uns besonders M Bh XIII 1, worauf bereits Winternitz, Gesch. d. ind. Lit. I 355, kurz hingewiesen hat. Der Sohn einer frommen Brahmanenfrau ist eines Tages von einer giftigen Schlange tödlich gebissen worden. Ein Jäger will diese von ihm gefangene Schlange deshalb töten, was die Brahmanenfrau nicht zuläßt, weil man durch Tötung eines Lebewesens nur Schuld auf sich lade. Da beginnt die Schlange plötzlich zu reden und führt aus, der Todesgott Mṛtyu habe sie angetrieben, das Kind zu töten. Darauf erscheint Mṛtyu selbst und erklärt, daß weder die Schlange noch er selbst, sondern der Schicksalsgott Kāla den Tod des Knaben veranlaßt habe: „Von Kāla veranlaßt, habe ich dich, o Schlange, angetrieben, du bist nicht schuld am Tode des Kindes. Wie der Wind die Wolken hin und her treibt, dieser Wolke ähnlich stehe ich unter Kālas Herrschaft. Alle Zustände der Entschlossenheit (sattva), der Leidenschaft (rajas) und der Verblendung (tamas) entstehen, durch Kāla veranlaßt, in den Geschöpfen. Das Aufblühen und der Niedergang in dieser Welt wie auch alle die Veränderungen sind von Kāla veranlaßt, so ist es überliefert worden. Sonne, Mond, Viṣṇu,

Wasser, Wind, Indra, Feuer, Luftraum, Erde, Mitra, Parjanya, Aditi und die Vasavas, die Flüsse und Ozeane, alle existierenden und nicht existierenden Dinge werden von Kāla immer wieder erschaffen und vernichtet. Wir beide (Mṛtyu und die Schlange) sind nicht frei; sondern, dem Kāla unterworfen, sind wir angewiesen, Handlungen zu verrichten; darum dürfen wir nicht als verbrecherisch angesehen werden, wenn du genau erwägst." Da erscheint der Schicksalsgott Kāla selbst und spricht: „Weder ich noch der Todesgott (Mṛtyu) noch diese Schlange hier sind schuld am Tode irgendeines Geschöpfes; wir sind nicht die Verursacher; das Karman ist es, das uns dazu getrieben hat; keine andere Ursache für einen Untergang gibt es. Nur durch das eigene Karman ward das Kind getötet. Wie der Töpfer aus einem Tonklumpen alles formt, was er will, so erlangt der Mensch nur dasjenige Karman, das er durch seine Tat sich selbst bereitet hat. Wie Licht und Schatten stets aufs engste miteinander verbunden sind, so sind auch die Tat und der Täter eng verbunden durch alles, was er selbst getan hat." Also Mṛtyu ist nur ein Bote des Kāla, während Kāla selbst eigentlich der Vollstrecker des Karman ist.

An einer andern Stelle wird Kāla, der allmächtige Schicksalsgott, geradezu als das Karman selbst dargestellt, dem auch alle Götter mit Ausnahme des Brahman unterworfen sind. Dieser Gedanke steht in dem Zwiegespräch zwischen dem Asura Bali und Gott Indra im Vordergrund. „Auch dich, den übermächtigen, kraftstrotzenden Götterkönig, o Indra, wird der übergewaltige Kāla, sobald die Zeit gekommen ist, beseitigen" (tvām apy atibalaṃ śakra devarājam balotkaṭam, prāpte kāle mahavīryaḥ kālaḥ saṃśamiṣyati). Weder von mir noch von dir, noch von den früheren Göttern konnte er abgewehrt werden (mayā tvayā ca pūrvaiś ca na sa śakyo nivartitum) XII 224, 56—57. „Kāla leitet mich in der Zeit, derselbe Kāla leitet auch dich, Indra; deshalb bin ich heute nicht wie du und du auch nicht wie wir. Weder Wissen noch Askese, Freigebigkeit, Freunde, Verwandte können einen Mann beschirmen, der von Kāla heimgesucht ist. Durch Kāla besiegte ich dich,

durch Kāla bin ich von dir besiegt worden. Kāla kommt zu den in Bewegung Befindlichen, Kāla treibt die Geschöpfe. Sobald die Zeit (= Karman) um ist, wird Kāla dich ebenso bedrängen wie mich. Viele Tausende von Indrās sind in jedem Äon von Kāla heimgesucht worden, denn Kāla ist unüberwindlich. Erlangt habend diese hohe Stellung, hältst du dich selbst für so hoch wie der ewige Gott Brahman, der alle Wesen hervorgerufen hat. In dem, was kein Vertrauen verdient, siehst du etwas Vertrauenswürdiges und in dem Unzuverlässigen etwas Zuverlässiges. Derart beschaffen ist eben ein solcher, der von Kāla heimgesucht ist, o Götterherr. Wenn mich, den ständig Gerüsteten, der nicht schlummernde Kāla packt, so freue dich nicht lange darüber, o Indra; auch dich wird er packen. Infolge des Kāla bist du in dieser herrlichen Menschenwelt anbetungswürdig. Kāla ist der Täter und Vernichter, es gibt keine andere Ursache dafür. Du schmähst mich, der ich, nachdem (meine) Zeit um ist, durch den daherfahrenden Kāla bedrängt, gebändigt und mit der Fessel des Kāla gebunden (kālapāśena baddha) bin, o Indra. Gewinn und Verlust, Behagen und Unbehagen, Lust und Zorn, Geburt und Tod, Gefangenschaft und Befreiung, alles wird durch Kāla erlangt. Nicht ich bin der Täter, nicht bist du, Indra, der Täter, Kāla ist der Täter, der auch ständig der Herr ist. Die herangekommene Zeit bringt mich zur Reife wie eine Frucht am Baume.“ (MBh XII 227, 28—82.) Dem Asura Bali erwiderte hierauf Indra: „Ich weiß es, daß eben diese eine Welt nicht ewig ist, sondern in das schreckliche, verborgene, unaufhörliche Feuer des Kāla [1]) ge-

1) Vom zerstörenden „Feuer der Zeit“ (kālānala) ist auch Rām. 3, 69, 19 die Rede. In Mṛtyulāṅgala Upan., die sehr jung ist, heißt Rudra (= Śiva) kālāgnirudra „Rudra, der über das Feuer der Zeit verfügt“. Auch eine kleine Upanisad trägt diesen Namen (vgl. One Hundred and eight Upaniṣads ed. Panaśākara Lakṣmaṇa Vasudeva, Bombay 1925, Nr. 30). „Kāa vernichtet (einst) die Welt“ (Kālaḥ saṃkṣayate jagat, MBh VI 3,52; 8, 29) u. zw. durch Feuer. Nicht nur die Vernichtung, sondern auch die Entstehung der einzelnen Kalpa's geschieht durch Kāla (Saura P. 22, 7).

setzt ist. Nicht ist hier ein Entrinnen für einen, der von Kāla betroffen ist. Wer da in den Bereich des unaufhaltsamen Kāla kommt, der keinen Gebieter über sich hat (aṃśa), der behutsam und ständig die Wesen zur Reife bringt, kommt von ihm nicht los. Nicht achtlos wacht Kāla über die unbesorgten bekörperten Geschöpfe. Aus der Vorzeit stammend, ewig, sich gleichbleibend, ist das Gesetz, dem Kāla kann man nicht entrinnen, noch aus dem Wege gehen. Kāla, der wie ein Wucherer (vārddhuṣika) die Zinsen eintreibt, treibt ein die Tage und Nächte, die Monate, Augenblicke und die allerkleinsten Zeitpunkte. Wenn diese Welt durch den stärkeren Kāla, nachdem er herangekommen ist, zur Reife gebracht worden ist, wird sie weggefegt" (XII 227, 90—101). „Von Kāla veranlaßt gehen die Geschöpfe gegen ihren Willen in die Hölle ein" (XII 278, 17). „Ohne Kāla wird man nicht in den 3 Welten geboren; deshalb werde ich hier Kāla als die Ursache aller Karman bezeichnen" (Bhav. Pur. II 102, 7, 3 f.: na kālena vinā kiñcit triṣu lokeṣu jāyate, ataḥ kālaṃ pravakṣyāmi nimittaṃ karmaṇām iha). Kāla ist hier das göttliche Prinzip des blinden, zum Heil und Unheil wendenden Wechsels in den Verhältnissen.

Hier sehen wir Kāla selbstherrlich schalten über Götter und Menschen. Die Wesen haben keinen freien Willen, sondern folgen dem Zwange des Kāla. Doch nur einer steht über ihm, der ewig sich gleichbleibende Brahman, der sich aber um das Treiben Kāla's nicht kümmert. „Der höchste Brahman ist unwandelbar in Raum, Zeit und Kausalität" (deśakālanimitta, Sarvopaniṣatsara 21). In der unter priesterlich brahmanischem Einfluß verfaßten Götterliste des 9. Buches folgt dem an der Spitze aller Götter (devā brahmapurogamāḥ) stehenden Brahman jedoch Bṛhaspati, der Priestergott; dann folgen Indra, Viṣṇu, Sūrya, Candramās, Dhātar, Vidhātar, Vāyu, Agni, Pūṣan, Bhaga, Aryaman, Aṃśa, Vivasvat, Rudra, Mitra, Varuṇa, die 11 Rudrās, die 8 Vasavas, die 12 Ādityās, die 2 Aśvinau, die Viśvedevās, Marutas, Sādhyas, Pitaras, Gandharvās, Apsarās, Yakṣas, Rākṣasās, die Ṛṣis, die Jahreszeiten (ṛtavās), Planeten (Grahās), Gestirne

(j y o t i ṃ ṣ i), die Flüsse, Veden, Erde, Himmel, Himmelsgegenden, Hrī, Srī, Svāhā, Sarasvatī, Umā, Śaśī, Sinīvalī, Anumati und Kuhu. Als letzte Gottheiten werden genannt: Kāla, Yama und Mṛtyu (IX 44—45). Gemäß dieser im 9. Buche enthaltenen Götterrangordnung sind die Planeten und Gestirne höhere Gottheiten als Kāla. Von Bedeutung ist hier auch die Stellung Kāla's; er steht dem Yama übergeordnet, also an der Spitze der Unterweltgötter. Auf diese jüngere Schule, gemäß der Kāla dem Yama vorsteht, nimmt die Atharvaśira-Up. Bezug. Dort wird c. 2 Rudra (= Śiva) mit den verschiedensten Göttern gleichgesetzt, darunter auch mit den Unterweltgöttern „Kāla, Yama, Mṛtyu". Auch hier nimmt Kāla unter den Unterweltgottheiten den höchsten Rang ein. Aber die verschiedenen Gottheiten sind nach dieser Upaniṣad nur Erscheinungsformen des einzigen Gottes Śiva. Ebenso wie die Kräfte Śiva's als weibliche Gottheiten (Ś a k t a y a ḥ) personifiziert werden, so werden auch dem Kāla Göttinnen zugeschrieben. So erscheint in V ī r a c a r i t r a Adhy. 28 eine K ā l a ś a k t i (H. Jacobi in Ind. Stud. 14, 140). An ganz bestimmten Tagen wurde Kāla Verehrung dargebracht. „Kāla's Verehrung zur Unzeit vernichtet den religiösen Verdienst eines Jahres" (Saura P. 68, 15, W. Jahn, Saurap. S. 166).

7. Die Gleichsetzung Kāla's mit dem e i n e n göttlichen Urprinzip.

In denjenigen Teilen des MBh, wo Śiva (= Mahadeva) bzw. V i ṣ ṇ u (= Kṛṣṇa) für Brahman eingetreten ist, ist stets Śiva (bzw. Viṣṇu) höher als Kāla (XII 206, 11; 47, 69: p a r a ḥ k ā l ā t), daher „der Herr des Kāla" (k ā l a n ā t h a XII 284, 24, K ā l e ś a Bhav. Pur. 136, 63), der über Kāla und Mṛtyu verfügt (k ā l a s y a c a h i m ṛ t y o ś c a . . . ī ś a t e MBh V 68, 13); er ist der „Behälter der Zeit" (k ā l a n i d h i , Ś i v. P.). Von ihm sind „Zeit, Brahman, die Veden" (MBh VII 201, 75), „das Rad der Zeit" (k ā l a c a k r a m), sowie alle übrigen göttlichen Wesen erschaffen (XIII 18, 73). Er heißt der M a h ā k ā l a, „der große Kāla" (I 61, 21), dessen Heiligtum ebenfalls den

Namen M a h ā k ā l a trägt (Daṇḍin, Daśakumār. p. 3[1]). Viṣṇu selbst personifiziert gleichsam „das anfangslose Rad der Zeit" (k ā l a c a k r a m a n ā d y a m)[2]). Wenn Śiva in der Bhagavadgītā (10,29 ff.; 33 f. = MBh VI 34, 29 f.; 33 f.) und in MBh VII 203, 95 ff. als Alleingott gepriesen wird, der alle Götter in sich faßt, so ist es selbstverständlich, daß er dort auch mit den Unterweltgottheiten Kāla, Antaka, Mṛtyu und Yama identifiziert wird (vgl. XIII 17, 48; 160, 39 f.). Als allmächtige Schicksalsgottheit wird Kāla mit Śiva verglichen. Ebenso wie „Śiva der Herr aller Welten" im Anfang, in der Mitte und am Ende wacht, so wacht Kāla im Anfang, in der Mitte und am Ende (XII 122, 52 f. j ā g a r t i k ā l a ḥ p ū r v a ṃ c a m a d h y e c ā n t e c a). Infolge der jüngeren Vorstellung von der Unendlichkeit der Zeit war die Möglichkeit der Identifizierung der Gottheit Kāla mit dem einen Urprinzip, dem ja allein der Begriff der Ewigkeit zukommt, gegeben [3]).

Die Gleichsetzung Kāla's an einer Stelle im jungen 13. Buche des MBh mit dem e i n e n göttlichen Urprinzip, das ebensowenig dem Karman unterworfen ist wie Kāla selbst, zeigt auch den Einfluß der philosophischen Kāla-Spekulation des AV. und der Upaniṣads. So enthält MBh XIII 16, 16 die Lehre, daß es im ganzen 3 Erscheinungsformen des Śiva (tanavas tisras) gibt, nämlich K ā l a, P u r u ṣ a u n d B r a h m a n. Hier ist Kāla, der in dieser Trias den höchsten Rang einnimmt, offensichtlich mit dem Upaniṣadbegriff Puruṣa zusammengestellt.

1) Sehr jung ist die Auffassung der Śvetāmbara, daß Mahākāla und Kāla zwei verschiedene Gottheiten sind, deren Lebensdauer ein Palyopama Jahre beträgt (Kirfel, Kosmogr. 243. 251).

2) Unter den 1000 Namen Viṣṇu's findet sich Kāla an 418. Stelle (MBh XIII, 149).

3) In den Purāṇas tritt Brahma als Puruṣa und als Kāla in Erscheinung (Gār. P. 4, 4; Viṣṇu P. I 2, 14 f.; Kirfel Pur. p. 6). Als Brahma ist der Urgott der Schöpfer, hingegen als K ā l a der Zerstörer der Welt (b r a h m a t v e s ṛ j a t e l o k ā n, k ā l a t v e c ā p i s a ṃ k ṣ i p e t, Bhaviṣya P. I 77, 9), vgl. auch Brahma P. II 3, 104 f.: k ā l o b h ū t v ā p u n a ś c ā s a u r u d r a ḥ s a ṃ h a r a t e p r a j ā ḥ; Bhav. P. III 20, 53: K ā l o n ā m a s a v a i K ṛ ṣ ṇ a ḥ. Im Saura P. ist Kāla häufig mit Śiva identisch (VIII, 22 f; XXIX, 28; LXI, 53).

Im selben Kapitel (V. 49) wird Śiva auch mit den zerstörenden Göttern gleichgesetzt, worunter sich wiederum Kāla befindet, der dort ebenfalls in den Vordergrund gerückt wird. Der zu den Unterweltgottheiten gehörende Kāla ist dem Volksglauben entnommen und von dem oben erwähnten philosophischen Urprinzip Kāla verschieden.[1] „Du (Śiva) bist Mṛtyu, Yama, Hutāśa, der weltzerstörende Kāla, der höchste Ursprung des Kāla und dieser ständig bleibende Kāla" (Mṛtyur yamo hutāśaś ca kālaḥ saṃhāravegavān, kālasya paramā yoniḥ kālaś cāyaṃ sanātanaḥ). Im Anschluß hieran werden im folgenden Vers (50) die Planeten erwähnt: „Du (o Śiva) bist der Mond, die Sonne samt den Sternbildern (nakṣatrāṇi), die Planeten, der Polarstern und das Siebengestirn des Bären (Saptarṣayaḥ).[2] In XIII 17,38 ist Śiva einerseits „der Zustandebringer der Sternbilder" (nakṣatrasādhaka), andererseits wird er mit den Planeten identifiziert: „Du bist der Mond, die Sonne, der Saturn (Śani), der Komet (Ketu), der Planet, der vorzüglichste unter den Monden" (V. 39). Zugleich ist er aber auch Kāla (V. 48). Also, Śiva ist nicht nur der Leiter der Gestirne,[3] sondern zugleich auch das Fatum. Hier tritt uns eine bereits

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1) Die beiden sich widersprechenden Auffassungen, daß Kāla einerseits mit Śiva identisch, andererseits ein Geschöpf Śivas ist, kommt in XIII 17,94 zum Ausdruck. Er wird dort als „Kāla Makara und der von Kāla Verehrte" (kālaśca makaraḥ kālapūjitaḥ) bezeichnet. Als das philosophische Urprinzip ist Kāla mit Śiva identisch, als Schicksalsgott ist aber Kāla dem Śiva untergeordnet. Daß es stets Brahmanenlehrer gab, die die Gleichsetzung Kāla's als eine Schicksalsgottheit mit dem einen Urprinzip ablehnten, geht aus Śvetāśv. Up. 1,2 hervor, wo ausgeführt wird, daß weder Kāla noch Natur (svabhāvaḥ), noch Schicksal (niyatiḥ), noch Zufall (yadṛcchā) „als Grundelemente (bhūtāni), als Ursprung (yoniḥ), als Puruṣa anzusehen" seien, sondern daß Brahman allein der Urgrund der Welt sei.

2) Vgl. auch XII 284, 58: „Du (o Śiva) bist die Konstellationen, die Planeten und Kāla"; II 38,26: „Sonne, Mond, Nakṣatrāṇi und Planeten ..., alles dieses ist in Kṛṣṇa enthalten".

3) Ähnlich wird „der Sternenherr" Brahman (= Śiva) unter vielen anderen Gottheiten auch mit Kāla identifiziert (Nṛsiṃhatap. Up. 1,4; 4,3; Nārāy. Up. 2).

ausgeprägte Gestirnreligion entgegen. Die Gestirne entfalten nicht wider Śivas Willen ihre Wirkung, sondern tun den Menschen nur den unabänderlichen göttlichen Willen kund, der durch den unerbittlichen Kāla, den Schicksalsgott, unbedingt zur Ausführung gelangt. Ebenso wie in Iran unter dem Einfluß der Astrologie Zarvān „die Zeit" allmählich die oberste Gottheit geworden ist, sehen wir, daß auch Kāla unter astrologischem Einfluß schließlich mit Brahman bzw. Śiva identifiziert wird. Gerade das MBh gibt uns ein klares Bild von den einzelnen Entwicklungsstufen der Schicksalsgottheit „Zeit", die ihren Ursprung der Verschmelzung der Astrologie mit der altindischen Kulturwelt verdankt. Das Epos MBh, dessen ältester Teil um 300 v. Chr. entstanden ist, ist etwa um 500 n. Chr. abgeschlossen worden (vgl. Winternitz I 395 ff.). Daher finden wir darin nicht nur „die allwissenden Yavanās" (= Griechen VIII 45, 35; VII 113, 41 f.; 119,14 ff.; 120,1) und die Śakās (= Saken II 52, 16; V 197, 7; VI 76, 21; VII 119, 1521; VIII 73, 19; XII 65, 13) erwähnt, sondern auch die Pahlavās [1]) (= Parther XII 65, 13) und die „unreinen" und „gottlosen" Balhikās (= Baktrier VII 106,7; 113, 37; VIII 44, 6. 22). Letztere werden als „das Übel der Welt" bezeichnet (V 39, 40; 59, 80), die weder die Veden noch die Opfergesetze kennen (VIII 20, 10; 44, 14. 44 f.). Schließlich begegnen wir dort auch den Romakās (= Römer II 51, 17. 30) und den Hūnās (= Hunnen VI 9; XII 325, 15). Letztere hatten sich erst im Anfang des 5. Jahrh. n. Chr. in Indien festgesetzt. So ist es auch erklärlich, daß sich im MBh auch ein griechisches Lehnwort findet (suruṅga = griech. σύριγξ, O. Stein, ZJJ., III 281 ff.).

Im 4. Jahrh. v. Chr. war die eng mit der Astrologie verknüpfte Schicksalsgottheit Kāla noch nicht in Indien vorhanden, da sie sonst in den kanonischen buddhistischen Schriften und in den älteren Dharma- und Gṛhyasūtren erwähnt worden wäre.

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1) Die Yavanās, Śakās und Pahlavās erwähnt auch Manu X 44, jedoch ist ihm die Schicksalsgottheit Kāla noch unbekannt.

8. Kāla ist in den jüngeren Ritualwerken mit Yama identisch.

Die zerstörende Eigenschaft der Zeit, die am schärfsten in der Vernichtung des Lebens zum Ausdruck gelangt, hat es bedingt, daß Kāla etwa seit dem 5. Jahrh. n. Chr. schlechthin mit dem Todesgott identisch wird. In jungen Ritualwerken finden wir daher Kāla als Bezeichnung für Yama. So erscheint er im Utsarjanaprayoga, worüber ich WZKM 1928 gehandelt habe [1]), unter den 13 Beinamen Yamas, wobei Yama selbst der 14. ist. Am Schluß seiner Studien muß der Schüler den Ṛṣis, Pitaras [2]) und sämtlichen Namen Yamas Libation darbringen. Dieser auf Yama bezügliche Abschnitt lautet in diesem Ritualwerke: „Alsdann soll die Yama-Libation von rechts oder von rechts nach links vollzogen werden. Er möge Libationen darbringen dem Yama, Dharmarāja, Mṛtyu, Antaka, Vaivasvata, K ā l a, Sarvabhūtakṣayakāra („Vernichter aller Wesen"), Audumbara, Dadhna, Nīla, Parameṣṭhin, Vṛkodara, Citra, Citragupta. Dieses ist die Yama-Libation. Alsdann möge man Yama (= K ṛ t ā n t a) mit diesen 10 Namen zitieren: Yama, Vihantar („Vernichter"), König der Pitaras und König des Dharma, Vaivasvata, Stockträger, K ā l a, Herr der Wesen, Heranschleicher an das Gegebene, Heranschleicher an das Geschaffene. Zehnmal möge er (diese Namen) ausspre-

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1) Dort finden sich mehrere Druckfehler. Es muß heißen S. 59 Z. 8: N ā r ā y a ṇ a v ṛ t t i; — Z. 14: u p ā k a r m a ś r ā v a ṇ y ā ṃ; — Z. 25: ś r ā v a ṇ e. — S. 60 Z. 25: ndl. — S. 63 Z. 2: m a d a n u g r a h ā t; — Z. 7: s u r e ś v a r ā t verschrieben aus s u r e ś v a r ā ṭ; ī ś v a r ā ṭ (für ī ś v a r a r ā ṭ). N. S. kommt auch im Śivasaṃk. Up. (Z. D. M. G. 75, 208 V. 11) vor; — Z. 10: j a r j a r e b h ū t e verschrieben aus j a r j a r ī b h ū t e. — S. 64 Z. 5: m ā t ṛ m ā t ā m a h ā d a y a ḥ; — Z. 9 wohl verschrieben aus v a s t r a n i ṣ p ī ḍ a n o d a k a m; — Z. 12: b h r ū ṇ a h a t y ā; — Z. 21: Die Form k a r m a ṃ beruht auf mittelind. Einfluß ebenso wie in Bhāvaprakāśa (Calcutta 1875) IV 98: ś u k l ā r m a ṃ, r a k t ā r m a ṃ, a d h i m ā ṃ s ā r m a ṃ.

2) Der Zusammenhang der Pitaras und Ṛṣis mit dem Todesgott Kāla wird aus MBh XIII 150, 19 ff. klar. Dort wird gesagt, daß Mṛtyu, Kāla, die Viśvedevās, Pitaras, Ṛṣis und Munis auf alle Handlungen der Menschen achtgeben und die Menschen für ihre guten Taten belohnen. Hier ist also Kāla zugleich der Vollstrecker des Karman. Hariv. 12492 bezeichnet „den allgebietenden Kāla als den Vernichter des Alls, den H e r r n d e r P i t a r a s" (P i t ṛ ṇ ā ṃ . . . p r a b h u m).

chen[1]).“ Wenn Baudh. Dharm. 2, 5, 9, 11 unter den 10 Beinamen Yamas ebenfalls Kāla anführt, so beweist dieses, daß diese Stelle jung ist. Kāla als eine Form Yamas wird in der Hindu-Kunst vierarmig, skelettartig dargestellt und ist teils mit einem Skorpion an der Brust, teils mit einem spitzen, breiten Messer, teils mit einem Kobra-Gürtel und einem Halsband versehen, sitzend auf 2 sterbenden Männern[2]).

Daher finden wir Kāla nicht nur in Tantrākhyāyikā (vgl. Hertel II p. 137), sondern auch in der sehr jungen Muktikā-Up. als den Todesgott. Dort heißt es Vers 43: „Dann wenn derjenige, der mit den 108 Upaniṣads zu lesen angefangen hat, infolge der Gewalt des Kāla (Kālavaśāt) dahingeschieden ist, so gelangen diese in meinen (des Viṣṇu) körperlosen

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1) Atha yamatarpaṇam, savyenāpasavyena vā kāryam, yamaṃ tarpayet, dharmarājaṃ tarpayet, mṛtyuṃ tarpayet, antakaṃ tarpayet, vaivasvataṃ tarpayet, kālaṃ tarpayet, sarvabhūtakṣayakaraṃ tarpayet, audumbaraṃ tarpayet, dadhnaṃ tarpayet, nīlaṃ tarpayet, parameṣṭhinaṃ tarpayet, vṛkodaraṃ tarpayet, citraṃ tarpayet, citraguptaṃ tarpayed iti yamatarpaṇam. tato yamo nihaṃtā pitṛdharmarājo vaivasvato daṃḍadharaś ca kālaḥ, bhūtādhipo dattakṛtānusārī[ti] kṛtāṃtam etaddaśabhir japaṃti, iti daśavāraṃ japet. Unmittelbar daran schließen sich 10 Ṛk-Verse (I 22, 10; 140, 9; 177, 4; V 53, 14; VII 15, 13; 17, 1; 104, 15; VIII 4, 11; 44, 3; X 98, 12) und die 2 Śloken Nr. XV (vgl. W. Z.K.M. 1928, 64) an. Auch im Utsarjanopakarmaprayoga (= Ms. Sansk. e 42 der Bodleiana) Fol. 15 finden sich diese 13 Namen des Yama. In Bhaviṣya Pur. IV 113, 52 f. gehört Yama zu den Dreizehn, und weichen einige Namen vom obigen Text ab. Die Stelle lautet dort: Dharmarājāya Kālāya Citraguptāya Daṇḍine Mṛtyave Kṣayarūpāya Antakāya Yamāya ca, Pretanāthāya Raudrāya tathā Vaivasvatāya ca Mahiṣasthāya Devāya nāmānīha trayodaśa. Dagegen führt Bhav. P. IV 112, 1 nur folgende 7 Namen für Yama an: Yamarājan, Kāla, Nīla, Citragupta, Vaivasvata, Mṛtyu und Parameṣṭhin. Eine abweichende Überlieferung der 7 Namen liegt in Bhav. P. IV 140, 10 vor: Tataś ca tarpaṇaṃ kāryaṃ dharmarājasya nāmabhiḥ, Yāmāya Dharmarājāya Mṛtyave ca-Antakāya ca Vaivasvatāya Kālāya Sarvabhūtakṣayāya ca. Auch in Saura P. 69, 3 ist Kāla mit Yama identisch.

2) Vgl. Fergusson-Burgess, The Cave-Temples of India, London 1880, 439. 453. 457 u. Pl. LXXII. Der als Unheilsgott gefürchtete Kāla kommt in den Purāṇas sogar als Asura vor (Saura P. 49, 13, Mārk. P. 83, 20 ed. Bombay).

Erlösungszustand". Kāla erscheint auch in Daṇḍins Daśakumāracarita als Todesgott, vgl. p. 61: gata evāyaṃ kāladaṣṭaḥ „dieser ist eben dahingeschieden, von Kāla gebissen"; p. 105: Kāmapālo pi kāladaṣṭa eva „auch Kāmapāla ist eben von Kāla gebissen worden". In der Siṃhāsanadvātriṃśikā Erz. 19 zeigt „ein Eber, der Kāla der Tod ist" (kṛtāṃtakālaḥ kolaḥ) dem König Vikrama den Weg zur Unterwelt (Weber. Ind. St. XV 378). Ähnlich kommt auch im Arabischen die Zeit als „Inbegriff der lebenvernichtenden Mächte" vor und ist dort vom Beißen der Zeit die Rede: „Nicht froh, wenn ich eines Tages im Glücke sitze, nicht verzagt, wenn eine Zeit beißt und Schmerz bereitet" (vgl. W. Caskel, Das Schicksal in der altarab. Poesie. 1926, 48. 52).

9. Die Zeitgottheit hat sich auf indischem Boden selbständig entwickelt.

Unter dem Einfluß der erst in nachvedischer Periode eingedrungenen Astrologie hat sich, wie wir dargelegt haben, der Zeitbegriff auf indischem Boden selbständig zur Schicksalsgottheit entwickelt. Ein gemeinarisches Wort für „Zeit" gibt es nicht, weshalb es in der arischen Periode noch keine Zeitspekulation gegeben haben kann. Das Wort kālá- ist, wie W. Wüst ZJJ. V 165 f. wahrscheinlich gemacht hat, eine rein indische Bildung und gehört zu Wurzel kal „antreiben". Die Inder haben demgemäß recht, wenn sie Kāla als den „Antreiber" charakterisieren, vgl. MBh I 63, 21: kālo lokaprakālanaḥ. In ṚV. kommt Kāla nur einmal vor, und zwar im jüngsten Buche X 42, 9, wo es überhaupt zweifelhaft ist, ob ihm dort die Bedeutung „Zeit" bereits zukommt.

II. Die Zeit als Schicksalsgottheit im Iranischen.

10. Die späte Entwicklung der iranischen Zruvan-Vorstellung. Bereits der urarischen Religion war eine Art Dualismus eigen.

Im Iranischen tritt uns nun die gleiche Vorstellung von der Zeit als mächtigem Schicksalsgott entgegen, der Zruvan heißt. H. Junker hat in einem sehr anregenden Aufsatz: Über iranische Quellen der hellenistischen Aion-Vorstellung (= Vorträge d. Bibl. Warburg 1921/22) p. 174 behauptet: „Fraglos ist im älteren Iran Zruvan der Hauptgott gewesen, der durch die zarathustrische Reform durch Ōhrmazd, wenn auch nicht endgültig und vollständig ersetzt wurde." Doch widerspricht diese Behauptung der religionsgeschichtlichen Entwicklung. Wäre Zruvan der Hauptgott des altiranischen Volksglaubens in vorzarathustrischer Zeit gewesen, so hätte sich Zarathustra gegen ihn gewandt und ihn zum Dämon degradiert. Unmöglich kann ein logisch geordnetes System, das sich auf dem Prinzip des Zeitlosen und Ewigen aufbaut und selbst vielen kultivierten Menschen so schwer faßbar ist wie das Körperlose oder Reingeistige, die Volksreligion der vorzarathustrischen Zeit gewesen sein. In den Gāθās kommt der Ausdruck z r u v a n noch nicht vor. Dort drückt nur das Wort y a v den Begriff „Zeit" aus. Zur Zarathustra-Religion führt eine natürliche religionsgeschichtliche Entwicklungslinie der urarischen, polytheistischen Religion. Je älter eine Religion ist, desto weniger ist sie systematisiert. Nun läßt sich in vielen polytheistischen Religionen ein dualistischer Zug nachweisen, indem es darin nicht nur Himmelsgötter, sondern auch ihnen feindliche, dämonische Gewalten seit Urbeginn gibt. Ein solcher in der urarischen Religion sich findender dualistischer Zug ist in Iran von Zarathustra stark herausgehoben, ausgeprägt und zu einem starren Dogma gestaltet worden. Im Ṛgveda begegnen

wir Vṛtra, den Rakṣasas und den Asuras [1]), die den Himmelsgottheiten und Menschen feindlich gesinnt sind, Unheil, Verwüstung und Verwesung hervorrufen, die Erde in Finsternis hüllen, ihr den Regen vorenthalten. Die vedischen Schriften (vgl. R. V. X 124, A. Br. I 14, Jaim. Br. I 179, A. Br. II 31. 36; III 42; VI 4) berichten, daß die Asuras ursprünglich sogar mächtiger als die Götter gewesen waren, und R. V. X 82, 5 spricht von dem, „was jenseits von Göttern und Asurās ist".

Zwischen den Devās und den Asurās, wozu auch die Rakṣasas gehören, herrschen wesentliche Unterschiede. Die ersteren leuchten wie Tageslicht und sind für den Himmel geschaffen, die letzteren sind in Finsternis gehüllt und für die Erde gebildet (Ś. Br. XI 1, 6, 1—9; III 2, 1, 18). Bei den Göttern ist die Wahrheit, hingegen bei den Asurās die Unwahrheit (Ś. Br. IX 5, 1, 12 ff.), das Blendwerk (A.V. III 9, 4). Die Asurās und Rakṣasas, die in der untersten Finsternis wohnen (A.V. IX 2, 17 f.) und vornehmlich in der Nacht ihr Unwesen treiben (Ś. Br. II 3, 4, 23), verbreiten Dunkelheit (Ś. Br. IV 3, 4, 21; VII 3, 2, 19). Als die Götter zu den Himmelswelten aufsteigen wollten, hüllten die Asurās sie in Finsternis ein, so daß jene nicht den Eingang zu ihnen finden konnten. Erst durch das Śatātirātra - Opfer verscheuchten sie die Finsternis (Ś. Br. XI 5, 5, 1—5). Die Asurās und Rakṣasas bekämpften oft den himmlischen Wohnsitz der Götter, so daß letztere den Agni zu ihrem Schutze

1) Asura heißt, wie Geldner, Gloss. p. 20 treffend bemerkt: 1. Gebieter, Herrscher, 2. wie gr. δαίμων die Gottheit von ihrer furchtbaren und geheimnisvollen Seite, sofern sie durch überlegene List und Macht Gutes wie Böses tun kann. Seit der jüngeren ṚV-Periode dient Asura nur noch als die Bezeichnung für die gefürchteten bösen Gottheiten. Das Wort hat also dieselbe Entwicklung durchgemacht wie unser Ausdruck „Dämon". Zum Teil kann auch der Euphemismus mitgewirkt haben; genau so wie der schreckenerregende Rudra als der Śiva „freundliche" und der Ṛṣi Durmitra, der wegen seiner Unfreundlichkeit so hieß, als Sumitra bezeichnet wird (Kātyāyana, Sarvānukr. zu Ṛgv. X 105), sind die Unheilsgötter als die „Gebieter" angeredet worden. Ähnlich heißt die Göttin der mit hohem Fieber verbundenen Pockenkrankheit euphemistisch Śitalā „die kühle".

hinstellten (Ś. Br. I 6, 1, 11 f.), da dieser wegen seines Feuers ein wirksamer Verscheucher der Dämonen ist (Ś. Br. II 4, 2, 15). Die Götter, welche in ständiger Furcht vor den Angriffen der Asurās lebten (Ś. Br. VII 6, 1, 15; IV 2, 2, 7. 14; 3, 5, 3 f.; VI 3, 1, 5; 5, 1, 19; VII 3, 2, 18; 4, 1, 33), kämpften mit ihnen um die Herrschaft über diese Welt. Es gelang den Göttern, die Herrschaft über Himmel und Erde zu erringen (T. Br. I 6, 6, 2; Ś. Br. IX 2, 3, 8), so daß die Dämonen dauernd ihre Zuflucht im Süden nahmen, während die Stätte der Devās im Norden liegt. Von Süden aus greifen die Dämonen bei jeder sich darbietenden Gelegenheit die Götter an (Ś. Br. IV 2, 4, 19; 6, 6, 1; 3, 4, 21; VII 3, 2, 19), besonders wenn jene im Begriff sind, ein Opfer darzubringen (Ś. Br. I 3, 1, 5; 4, 1, 40; 4, 4, 8; III 3, 4, 2; 3, 3, 16; 5, 3, 15; 6, 1, 27; 9, 4, 6; IV 1, 1, 16; 1, 1, 19; IX 2, 3, 2; 5, 1, 19 ff.; 2, 3, 2). Als die Götter sich in vier verschiedene Parteien geteilt hatten, gelang es den Asurās, sie erfolgreich zu bedrängen. Da kamen die 4 Götterparteien überein, sich den Indra als ihr gemeinsames Oberhaupt zu wählen (Ś. Br. III 4, 2, 1 f.), der ein Asurahan wurde (Ṛ. V. VI 22, 4).

Ein besonders gefürchteter Unheilsdämon (pāpman) ist der Todesdämon Mṛtyu. Noch bevor Prajāpati, der „sowohl Vater als auch Mutter ist" (Ś. Br. V 5, 5, 26; vgl. auch IX 5, 1, 12), die Geschöpfe erschuf, wurde er schon von Pāpman angegriffen (pāpmagṛhīta), den erst der aus Prajāpati hervorgegangene Brahman verscheuchte (Jaim. Br. II 369). Nach Ś. Br. X 4, 4, 1—2 konnte er sich jedoch erst dadurch vom Pāpman wieder freimachen, daß er sich durch tausendjährige Kasteiung erhitzte, wodurch aus seinen Haarporen Licht hervorkam. Mṛtyu stellt bei verschiedenen Gelegenheiten dem Schöpfergott nach (Ś. Br. VIII 4, 4, 2). Alle Götter fürchteten sich anfänglich vor diesem Dämon (Ś. Br. X 4, 3, 1 ff.), der nach Ś. Br. X 6, 5 bereits seit Urbeginn existiert. Gewisse Götter und Dämonen sind also anfangslos. Aber infolge der erst im Brāhmaṇa-Zeitalter aufgekommenen Vorstellung, daß Prajapati der Schöpfer nicht nur der Götter, sondern auch der Dämonen ist (Ś. Br. III 4, 4, 3, 4; XIII 8, 2, 1), wird Mṛtyu

als ein Sprößling Prajāpatis bezeichnet (Ś. Br. X 1, 3, 2—4), obgleich er nach der älteren Mythologie bereits vor der Schöpfung Prajāpatis existiert hat. T. Br. 2, 2, 9, 1 ff. gibt für den Ursprung der Götter und Dämonen folgende Erklärung: Aus dem ursprünglich Nichtseienden (a s a d) entstand infolge des Erhitzens Prajāpati. Dieser Gott, von dem Wunsche beseelt, sich fortzupflanzen, erhitzte sich und gebar aus seinem Hinteren zuerst die A s u r ā s. Gleich nach dieser Geburt streifte er seinen Körper ab, aus welchem dann die finstere Nacht entstand. Aus dem Munde seines neuen Körpers brachte er darauf a l l e G ö t t e r hervor. Dementsprechend bezeichnet M Bh XII 33, 25 die Asurās und die Götter als Brüder, von denen die ersteren die älteren sind: A s u r ā b h r ā t a r o j y e ṣ ṭ h ā, d e v ā ś c ā p i y a v ī y a s a ḥ. Eine überraschende Parallele zu dieser Vorstellung bietet uns der Zarvanismus. Auch nach der sehr jungen Mythologie der Zarvaniten ist zuerst Ahriman und dann Ōhrmazd aus Zarvān hervorgegangen (vgl. Junker a. a. O. 142 f.).

Für Pāpman Mṛtyu (Ś. Br. VIII 4, 2, 1; 5, 2, 1; XIV 3, 4, 34; Kauṣ. Br. 21, 1) steht an verschiedenen Brāhmaṇastellen Pāpman, der nicht nur ein feindlicher Gegner der Menschen, sondern auch der Götter ist. Nach Ś. Br. X 4, 2, 2 f.; T. Br. III 6, 3, 1 fürchtete sich Prajāpati, als er die Geschöpfe erschaffen hatte, vor Mṛtyu. Als ihn einst von allen Seiten her der Pāpman befiel, verscheuchte er ihn mittels der Asapatna-Backsteine (Ś. Br. VIII 5, 1, 6) und „schnitt dann die Wurzel des Übeldämons ab". Der in Schuld geratene Indra vermag sich nur durch ein Opfer von Pāpman zu befreien (Jaim. Br. II 134 f.). Ait. Br. VI 1 berichtet: „Die Götter hatten sich bei Sarvacara zum Somafest eingefunden. Sie konnten den Pāpman nicht abwehren." Derselbe Pāpman suchte die Götter, als sie den Ātman zu erkennen strebten, zu verschlingen (Nṛsiṃhatāp. Up. 2, 6, 1). Hier will also Pāpman selbst den himmlischen Wesen den Heilsweg versperren. Die von den Dämonen stammende Finsternis faßte man ebenfalls als den Unheilsdämon Pāpman auf (p ā p m ā v a e ṣ a y a t t a m a ḥ). Daher soll der Brahmane, um sich vor ihm

zu schützen, die Abend- und Morgenspende in der Zeit darbringen, bevor Pāpman herannaht [1]. Mittels der Dīkṣā-Zeremonie, der sich die Götter in der ersten Monatshälfte unterzogen, wehrten sie den Unheilsdämon Pāpman ab (A. Br. 4, 25, 4).

Eine ähnliche Rolle wie der brahmanische Pāpman Mṛtyu spielt im Buddhismus „Māra der Unheilvolle" (p ā p i m a), der den Menschen von dem zum Nirvāṇa führenden Heilsweg abzubringen sucht. Der buddhistische Versucher Māra hat sich aus dem brahmanischen Todesgott Mṛtyu entwickelt (vgl. Kern, Manuel of Indian Buddhism 20 A 2), der ja als Pāpman bezeichnet, mit der Nacht identifiziert wird (A. Br. 4, 5) und viele Jahre lang mit dem Schöpfergott Prajāpati um den Vorrang stritt, bis es endlich letzterem gelang, ihn zu besiegen (Jaim. Br. II 69. 70, Caland Nr. 128): „Wie Gott Mṛtyu dem Naciketas die Herrschaft über weite Lande verheißt, wenn er der Erkenntnis des Jenseits entsagen will, so bietet Māra dem Buddha das Königtum über das ganze Erdreich, wenn er seiner Buddhalaufbahn abtrünnig wird. Wie Mṛtyu dem Naciketas Nymphen von überirdischer Schönheit bietet, so wird Buddha von Māras Töchtern, nämlich von Begier, Unruhe und Verlangen, versucht. Naciketas wie Buddha widerstehen allen Lockungen und erlangen das Wissen, das sie von der Macht des Todes befreit. Der Name Māra ist wesentlich dasselbe Wort wie Mṛtyu. Der Todesgott ist zugleich der Fürst dieser Welt, der Herr aller Weltlust, der Feind der wahren Erkenntnis, denn die Lust ist ja für das brahmanische wie das buddhistische Denken die Fessel, die an das Reich des Todes bindet, und die Erkenntnis ist die Macht, welche jene Fessel löst. Diese Seite des Todesgottes als des Versuchers zu Hoffahrt und Lust tritt in der buddhistischen Legende an der Gestalt Māras so sehr in den Vordergrund, daß darüber das ursprüngliche Wesen des Todesgotts fast verschwindet [2]." Buddha hat sich zur Aufgabe gemacht, die Menschen von den Fesseln des Todesgottes zu befreien. So

1) Vgl. Caland, Eine dritte Mitteilung über das Vādhūlasūtra, in Acta Orientalium III 26 f.

2) H. Oldenberg, Buddha⁶ 61 f.

beginnt seine erste Predigt: „Tut euer Ohr auf, die Erlösung vom Tode ist gefunden." Deshalb tritt gerade Māra, der Fürst des Todes, dem Buddha als der schlimmste Feind entgegen, da Buddha ihm ja seine Beute zu entreißen sucht. Wenn Māra die Seele eines Verstorbenen einzufangen sucht [1], so kennzeichnet er sich ebenfalls als der eigentliche Todesgott. Die indischen Religionen zeigen also unverkennbare Ansätze zur Entwicklung eines dem Iranischen analogen Dualismus.

Welche Ähnlichkeit enthalten demnach diese arischen Religionen Indiens mit der zarathustrischen! Wie ganz ungezwungen und natürlich reiht sich diesen indischen Religionen das dualistische System Zarathustras an. Schon die von M. Haug (Ait. Br. I, p. 59 ff.) dargelegten wesentlichen Übereinstimmungen zwischen dem vedischen Somafeste und der awestischen Haoma-Zeremonie zeigen die verwandtschaftlichen Zusammenhänge der vedischen und zarathustrischen Religion. Daß der arische Götterkult nicht vollständig von Zarathustra beseitigt worden ist, beweist auch der den Gāthās und den Veden gemeinschaftliche Terminus für die Anbetung einer Gottheit, aw. nəmah = ved. namas. Hätte Zarathustra die urarische Götterverehrung vollständig abgelehnt, so hätte arisch namas für ihn die Bedeutung: „Dämonenanbetung" angenommen [2]. Die Frage nach dem Ursprung der Dämonen wird vom älteren Brahmanismus ebensowenig aufgeworfen wie vom Zarathustrismus die nach dem Ursprung Ahrimans. Er existiert eben ähnlich Ōhrmazd von Ewigkeit her. Gerade der Umstand, daß Ōhrmazd in diesem Äon nicht als allmächtig geschildert wird, weist auf die ältere Religionsstufe hin.

11. Das Auftreten des Zeitgottes Zruvan in den jüngsten Partien des Awesta in Verbindung mit den Gestirnen.

In den jüngeren Partien des Awesta, in denen verschiedene Zeitgottheiten vorkommen, wie das „Jahr" (sarəδa, yāirya), „die Jahreszeiten", „die Monate", „die Tageszeiten", (asuya,

1) Samyutta Nik. IV 3, 3, Vol. I p. 120 f.

2) Vgl. auch Scheftelowitz, Ztschr. f. Missionsk. u. Religionswiss. 1927 286 f.

ratava), tritt uns zuerst Zruvan als unbedeutende Gottheit entgegen. So wird in Nyāyiš I 8 in engem Zusammenhang mit den Gestirnen, die dort angebetet werden, auch die Gottheit Zrvan genannt. Nachdem dort Ahuramazda, die Aməšaspəntas, Miθra und die Sonne angerufen worden sind, heißt es dann: „Wir verehren den Fixstern Tištrya, wir verehren die mit Tištrya zusammenhängenden Sterne, den glänzenden, glanzreichen Tištrya verehren wir, wir verehren den Fixstern Vananta, den von Mazda geschaffenen, wir verehren die freischaltende Himmelssphäre, wir verehren den Zrvan akarana („die endlose Zeit"), wir verehren den Zrvan darəγo-x^v adāta („die lang freischaltende Zeit"), wir verehren den hl., wohltuenden Wind." Aus dieser sehr jungen Stelle folgt, daß die Zeit als Gottheit dieselbe Rangordnung einnimmt, wie die zuerst in den jungen Awestapartien uns begegnenden Gestirne, mit denen sie eng verbunden ist. Das mit Zrvan akarana stets zusammen genannte θwāša kann nur die sich drehende Himmelssphäre sein,[1]) worauf auch Yašt 13,58 hinweist: „Diese (Sonne, Mond und Gestirne) wandeln jetzt die sich fern drehende Bahn (dūrae-urvaēsəm aδwanō), um die Drehung (urvaēsəm) zu erreichen, welche von der guten Neugestaltung der Welt ist." Die Vorstellung von dem „sich drehenden Himmelsgewölbe" findet sich nicht nur im Mittelpersischen (vgl. ZJJ. IV 329), sondern auch bei Firdōsi, vgl. ed. Vullers I p. 5, 2: nigāh kun äz-īn gunbäd i tīzgird, kih därmān äz-ūy-äst wä z-ūy-äst därd „gib acht auf die schnell kreisende Himmelswölbung, denn von ihr kommt Heil, von ihr kommt Leid"; p. 3, 14: pädīd āmäd īn gunbäd i tīzräw „es trat ins Dasein diese schnell sich bewegende Himmelswölbung"; p. 1445, 8 f.: „Als der Schöpfer das Meer, das Gebirge und die Erde schuf, dehnte er über sie den hohen Himmel; dieser eine (Himmel) dreht sich schnell, und das übrige steht an einer Stelle[2])".

1) Etymologisch hängt es mit θwāša „sich schnell bewegend" zusammen, ai. tvarate „eilt", gr. σάλος „Bewegung" (vgl. Boisacq, Dict. Etym. p. 850).

2) Daher spricht Firdōsi häufig von der „Drehung der Himmelssphäre"

In den übrigen Awestastellen erscheint Zrvan ebenfalls nur als untergeordnete Gottheit, so in Sīrōze, einem Anhängsel zum Awesta, wo die Schutzgötter der 30 Tage im Monat angerufen werden und auch die jungen Gottheiten wie „der Jahre währende annehmliche Wohnsitz" (Sīr. § 6 und § 7), „die Jahre" (Sīr. § 6) aufgezählt werden. In Sīr. 1, 21 heißt es nun: „Dem Rāma xᵛāstra, diesem überlegen wirkenden, vor anderen sich auszeichnenden Wesen. [Dieses an dir o Vāyu verehren wir, was dem hl. Geiste entstammt.][1]) Der freischaltenden Himmelssphäre, der endlosen Zeit und der lang freischaltenden Zeit." Daß die Gottheiten „Zeit" und „Jahr" unbedeutend waren, geht schon daraus hervor, daß die Gottheit Zeit in Sīrōze dem Rāma xᵛāstra, die Gottheit Jahr der Haurvatāt, hingegen die Gottheit „der Jahre währende annehmliche Wohnsitz" in Sīr. § 6 der Haurvatāt, in Sīr. § 7 den Fravašis untergeordnet ist. Die beiden Abschnitte Sīr. I 20—21 finden sich in mehreren Handschriften auch am Schluß von Yasna 72. Da sie aber in den von Tahmuras benutzten Mss fehlen, erwähnt dessen Edition sie nicht in Y. 72. Wörtlich aus dem Sīrōze 21 stammt nun in Vend. 19, 13. 16 der Satz: θwāšahe xᵛaδātahe zrvānahe akaranahe vayaoš uparōkairyehe. Daß er nachträglich in Vend. eingeschaltet ist, geht schon daraus klar hervor, daß die Genitive gegen die Grammatik von nizbayaṅuha abhängig gemacht werden, obwohl ni-zbā stets den Akkusativ regiert. Dort heißt es: „Ahuramazda sagte zu ihm (Zarathustra): Flehe an die gute Mazda-Religion, flehe, es mögen herabkommen die Aməšaspəntas zu der aus 7 Erdteilen bestehenden Erde." Dann folgt der soeben besprochene aus Sīr. § 21 entnommene Satz; ferner stehen dann ganz sinnlos die Nomina: vāta taxmō mazdadātō spənta srīra duγda Ahurahe mazdå „der starke, von Mazda geschaffene Wind und die schöne Tochter

(gärdiš i čärx, 410, 14) bzw. „drehenden Himmelssphäre" (čärx i gärdān, čärx i gärdāndāh p. 331, 10; 338, 13; 410, 10; 434, 2; 1344, 2; 1445, 7).

1) Dieser mit Klammern versehene Satz stammt aus Yasna 25, 5 und ist hier sinnlos eingeschaltet worden.

des Ahuramazda (= Ārmaiti)." Im nächsten § 14 wird dem Zarathustra geboten, außerdem noch die Fravaši Ahuramazdas und ferner Ahuramazda selbst anzurufen. Hierauf ruft Zarathustra in § 15—16 folgende 10 Gottheiten an: 1. den Schöpfer (dāmidāt) Ahuramazda, 2. Miθra, 3. Sraoša, 4. das Wunder wirkende Wort Ahuramazdas (= Mąθra spənta), 5. „die freischaltende Himmelssphäre" (θwāša), 6. „die endlose Zeit", 7. Vāyu, 8. Vāta („Wind"), 9. „die schöne Tochter Ahuramazdas", 10. „die gute Religion".

Gerade in Vend. 19, wo Zrvan akarana an einigen Stellen vorkommt, hat er stets eine bedeutungslose Stellung. Während er in Sīrōze dem Rāma χ^vāstra untergeordnet ist, steht er in Vend. 19, 13 im Vereine mit der Himmelssphäre hinter den Aməšaspəntas und erscheint hier auch als reiner Zeitbegriff, vgl. Vend. 19, 9: „Spənta Mainyuš hat verliehen, die Aməšaspəntās haben die trefflichen, wohltuenden Herrscher in der endlosen Zeit (zrūne akarane) geschaffen." Nun werden in Vend. 19, 29 die Seelenpfade, auf denen sämtliche Dahingeschiedene, sowohl Sünder als auch Rechtgläubige, zu der von Mazda geschaffenen Cinvat-Brücke gelangen als zrvadāta charakterisiert. Da im jüngeren Awesta jede Gottheit ihren eigenen Schaffensbereich hat (vgl. ātərədāta, spəntodāta), fällt das, was nur für eine gewisse Zeit bestimmt ist, ins Schaffensgebiet Zrvans. Die Seelenpfade werden nur bis zur Welterneuerung existieren, denn dann wird es ja keinen Tod mehr geben. Die Seelenpfade sind demnach für eine bestimmte Zeitdauer geschaffen, sie sind „zeitgeschaffen" (= zeitlich geschaffen). Ähnlich bedeutet Zrvan in Yasna 62, 2 die bis zur Welterneuerung sich erstreckende Zeit: „Um zum Wachstum zu gereichen in diesem Hause die lange Zeit hindurch (darəγəmčiṯ aipo zrvānəm) bis zur gewaltigen Welterneuerung."

Die hier erwähnten 2 Epitheta des Zruvan darəγo-χ^vadāta „lang freischaltend" und akarana rechtfertigen nicht die Annahme eines uriranischen Gottvaters Zruvan. Nicht nur er, sondern auch die Luft trägt im jungen Awesta-Abschnitt Nyāyiš 1, 1 den Beinamen „lang freischaltend". Das andere

Epitheton von Zruvan, akarana, ist das Gegenteil von anagra (vgl. Yašt 8, 48). Ersteres Wort heißt, wie Bartholomae richtig angibt, nur „endlos", letzteres hingegen „anfangslos". Zruvan ist im Awesta nur endlos (akarana), Ahuramazda jedoch „der erste und der letzte" (Yasna 31, 8), d. h. anfangslos und endlos. Dementsprechend betont Ōhrmazd gemäß Dēnk. IX 28, 11: „Und alles Existierende sehe ich vermöge meiner Weisheit und meines Wissens, was jemals war, ist und sein wird" (va harvast zak qadam χadītunam pūn zak i li χrat u frazānakih mā yehevunt mā it mā-ičhakarč yehevunēt). Nicht Zruvan, sondern Ahuramazdas Lichthimmel und Angromainyuš' dunkle Hölle existieren „anfangslos" (anagra raočå, anagra təmå); also seit Urbeginn hat es eine Zweiheit gegeben. Der Gr. Bund. (ed. Anklesaria) p. 9, 2 f. sagt ausdrücklich, daß von Ōhrmazd „nach der endlosen Zeit die lang freischaltende Zeit geschaffen worden ist." Ebenso betont Zāδspar. 1, 24 ausdrücklich, daß Zarvān ein Geschöpf Ōhrmazds ist. Dēnk. III c. 267 vertritt dieselbe Auffassung: „Der erste Schöpfungsakt des Schöpfers der Welt bezog sich auf die Zeit; . . . die Zeit war im Anfang endlos, aber sie wurde nachher begrenzt. Am Ende der begrenzten Zeit (d. i. am Weltenende) wird sie wieder ohne Grenzen werden." Da der aus urarischer Zeit ererbte und fest ausgeprägte Dualismus der altiranischen Religion eigen ist, wird gelehrt, daß das Gute und Böse nicht von einer einzigen himmlischen Quelle stammen, sondern von zwei ganz verschiedenen Geistern. „Und als diese beiden Geister anfänglich zusammenkamen, da bestimmten sie Leben und Tod und daß zuletzt sein soll für die Falschgläubigen das schlimmste Dasein, aber für den Rechtgläubigen der Lohn der besten Gesinnung" (Yasna 30, 4, Scheftelowitz, Altpers. Rel. p. 16). Auf Grund dieser alten Idee, daß nur zwei Geister uranfänglich existierten, von denen jeder eine besondere Schöpfung hervorrief, werden sie als „zwei Geister" (Dual) bezeichnet; und so ist es zu verstehen, daß die beiden Uranfänglichen als „zwei Zwillingsgötter" in Yasna 30, 3 charakterisiert werden [1]).

1) Wenn Dēnk. VIII 29 sagt: „Ōhrmazd und Ahriman sind zwei Brüder

Zur Zeit, als die babylonischen Planetennamen in Iran eindrangen, hat schwerlich der Zarvanismus schon existiert. Denn da für die babylonischen Namen Šamaš, Sin, Kaiwānu, Bēl, Dilbat, Nabu, Nergal die genau entsprechenden iranischen Götternamen eingesetzt worden sind[1]), hätte man für den babylonischen Göttervater Bēl nicht Ōhrmazd, sondern Zarvān gebraucht, wenn schon damals dieser Gott im iranischen Volksglauben als die oberste Gottheit angesehen worden wäre. Gerade in die iranische Volksreligion ist zunächst die Kenntnis der babylonischen Planeten im Vereine mit der Astrologie eingedrungen. Die Angabe in Bund. 5, 1, daß die Planeten ursprünglich Dämonen gewesen wären, die dann nachträglich Ōhrmazd unter seine Herrschaft gezwungen hätte, weist darauf hin, daß die offizielle Religion dem Eindringen dieser babylonischen Planetenkunde anfänglich feindlich gegenübergestanden hat. Nicht nur in allen Parsentexten ist für den babylonischen Bēl der Name Ōhrmazd eingesetzt worden (vgl. Bd. 5, 1, Gr. Bd. p. 69,7, Zāδspar. 4,7), sondern auch bei Firdōsi (p. 1100 f.), der gerade älteren persischen Volksglauben überliefert, und auch im Soghdischen (vgl. Scheftelowitz, Asia major I 469 A.). Wenn nun im Mithraskult eine mit vier Flügeln versehene Gottheit dargestellt wird, die einen Löwenkopf hat und um deren Leib oder Flügel eine oder mehrere Schlangen sich winden und die statt der Füße mit Vogelkrallen versehen ist,[2]) so kann diese als Zarvān gedeutete Darstellung nicht altiranischen Ursprungs sein, da die Schlange, wie bereits Herodot I 140 berichtet, im Iranischen ein dämonisches Tier ist. Bereits Darmestetter nimmt in seinem Buche Ōrmazd et Ahriman, p. 316 ff. an, daß der Zarvanismus sekundär entstanden ist. Nun berichtet Damaskios im Namen des Eudemos, daß die Iranier „das geistig wahrnehmbare und geeinigte Ganze, aus dem entweder ein

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in einem Mutterleibe gewesen", so beruht dieses auf dem Einfluß des jungen Zarvanismus. Gerade im Dēnk. lassen sich verschiedene fremde Einflüsse nachweisen, vgl. Scheftelowitz, Indische Kultureinflüsse, in Ztschr. f. Buddhismus 1926, 272 f.

1) Vgl. Scheftelowitz, Entstehung d. manichäischen Religion. 8 ff.

2) Diese Gestalt stammt aus dem Babylonischen, vgl. Z.I.I. IV, 342 A. 2.

guter Gott und ein böser Dämon oder nach einigen, von diesen Licht und Finsternis abgesondert worden seien, teils Ort, teils Zeit" nannten. Nach Schaeder Stud. 234 müsse dieser Eudemos mit dem im 4. Jahrh. lebenden identisch sein, da „das unendliche Licht" im Eingange des Gr. Bund „Ort" (bzw. „Thron") und „Stelle Ōhrmazds" heißt, ferner die beiden jüdischen Begriffe māqōm und šekinā „Ort" = „Gott" nur „zwei parallele Nachbildungen zweier iranischer Begriffe sind". Schaeder hat die Stelle Gr. Bd. 2, 14 ff., worauf sich seine These stützt, gänzlich mißverstanden. Diese lautet wörtlich: „Dieser Lichtthron und Raum des Ōhrmazd ist es, den man Asar rōšnīh (= höchsten Himmel) nennt. Dieses Allwissen und die Güte, die endlose Zeit, sowie Ōhrmazd, der Thron, die Religion und die Zeit des Ōhrmazd waren, sind und werden sein" (zak rōšanīh gāh va giyak i Ōhrmazd ast, mā asar rōšnīh yemalēlunēt, zak harvisp ākāsīh va vēhih, zamān i akanārak čēgūn Ōhrmazd va gāh va dēn va zamān i Ōhrmazd būt va hast va hamē bavēt). Hier sind Thron und Raum ebensowenig Urgottheiten, wie das Allwissen, die Güte, die Religion. Ferner hat sich der jüdische Ausdruck māqōm „Ort" als Name für Gott aus urisraelitischen Vorstellungen entwickelt.[1] Der philosophischen Spekulation von der Unbegrenztheit des Ortes begegnen wir erst in Šik. Gūm. c. XVI, 53 f. Nach ihm gibt es zwei Dinge, die unbegrenzt (akanārak) sind: „Ort (= Raum, giyāk) und Zeit (= zamān)." Im Dēnk. IX p. 464 § 17 (ed. Sanjana) heißt es: „Zeit und Raum zu begreifen und die Schöpfung ist Sache des Schöpfers." Eine zarvanitische Richtung wird vielleicht die zur Allgottheit erhobene „endlose Zeit" dem „endlosen Raum" gleichgesetzt haben. Die enge Verbindung von Raum und Zeit ist auch bei Firdōsi zu belegen (vgl. ZJJ. IV 344)

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1) Scheftelowitz, Monatsschr. f. Gesch. u. Wiss. d. Judent. 1921, 113 f., Sifrē § 131. Bereits in der Septuaginta bezeichnet Ort = Gott, vgl. Ex. 24,10: εἶδον τὸν τόπον οὗ εἱστήκει ὁ θεὸς τοῦ Ἰσραήλ.

12. Zruvan als Schicksalsgottheit in den mittelpersischen Schriften und bei Firdōsi.

Wir haben gesehen, daß Gott Zruvan erst in den jüngeren Partien des Awesta erscheint, und zwar in Verbindung mit Sterngottheiten und der Himmelssphäre. Dieses läßt vermuten, daß ebenso wie im Indischen der Zeitgott hier im Zusammenhang mit der Astrologie erstanden ist. Gerade hier spielt der richtige Zeitpunkt, von dem das ganze zukünftige Geschick abhängt, die Hauptrolle, vgl. Fird. p. 334, 10: „So ist mir das Geschick (baχš) von der Zeit (rōzgār) zuteil geworden"; p. 1715, Z. 10: „Mir wurde von der Zeit (rōzgār) der Kummer als Los zuteil". Und in der Tat bezeugen Theodor von Mopsuest[1]) und der Armenier Eznik[2]), daß Zarvān in der Sasanidenzeit das Schicksal bezeichnete. Diese Bedeutung finden wir auch in den mittelpersischen Schriften und bei Firdōsi wieder. Im Gr. Bund. p. 9, Z. 13 ff. wird, worauf Nyberg ZDMG 1928, 222 f. hinweist, berichtet, daß Ōhrmazd zuerst die langherrschende Zeit als erstes Geschöpf erschaffen hatte, welches er aber nach der Mischung mit Ahrimans Schöpfung begrenzt hatte. Jedoch nach 12000 Jahren, wenn die Geschöpfe Ōhrmazds mit Ōhrmazd vereinigt sind, wird sie mit der endlosen Zeit vermischt werden. Als Beleg hiefür wird aus einem Ritualwerk (Dēn) eine die Zeit verherrlichende Stelle angeführt, die schwerlich mit Nyberg ein aus 4 Strophen bestehendes Gedicht ist, da der Text keinen wirklichen Anhalt dafür bietet. Ich übersetze diese Stelle, um deren Aufhellung sich Nyberg sehr bemüht hat, vielfach abweichend von ihm, indem ich mich streng an den Text halte: „Die Zeit (zamān) ist stärker als all die 2 Schöpfungen, nämlich als die Schöpfung des Ōhrmazd und die des Ahriman. Die Zeit ist der Wertmesser für das Werk und für die Gerechtigkeit. [Die Zeit ist mehr auszufragen][3]). Die Zeit ist reicher

1) Bei Photius, Bibliotheca 81 ed. Becker: Περὶ τοῦ Ζούρουαμ, ὃν καὶ Τύχην καλεῖ. Vgl. C. Clemen, D. griech. u. lat. Nachrichten über die persische Religion 1920, 196.

2) Vgl. Hübschmann, Armen. Gramm. I 42; Clemen a. a. O. 196.

3) Nyberg hat richtig erkannt, daß der Abschreiber die beiden von

begütert [1]) als die Begüterten. Die Zeit ist mehr auszufragen als die Ausfragbaren, denn eine Entscheidung vermag man in der Zeit zu machen. Unsere Zeit vermag zu vertreiben das Geschick [2]) (b r ī n, vgl. Denk. VII 8, 14). Durch die Zeit wird auch der Feststehende (p a δ s t a k = air. *p a d a s t a, ai. p a d a s t h a ‚auf festem Fuß stehend', np. vgl. p ā y i s t ā h feststehend'; von Nyberg nicht erkannt) auf einmal zerschmettert. Das (menschliche) Leben (aram. χ a y ā) wird von ihr nicht befreit; von der Zeit hinweg fliegt die Seele der Menschen nicht nach oben und eilt sie nicht nach unten und weilt sie dann auch nicht, wenn sie unter die Welt der kalten Gewässer hinabsteigt [3])."

Diese Stelle soll, wie ausdrücklich vom Bundahišn betont wird, darlegen, daß die von Ōhrmazd geschaffene Zeit nach Verlauf von 12 000 Jahren endlos sein wird. Da nach 12 000 Jahren einerseits Ahrimans Schöpfung vernichtet wird, andererseits Ōhrmazds Schöpfung eine völlige Umwandlung erfährt, wird die Zeit allein unverändert bestehen, deshalb ist „die Zeit

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mir in eckige Klammer gesetzten Worte aus der folgenden Zeile irrtümlich genommen hatte.

1) Vom Abschreiber ist h a č ausgelassen, was Nyberg erkannt hat.

2) Ähnlich heißt es Bhaviṣya Pur. II 102, 7, 1: „Von Kāla abhängig, wendet sich das Geschick und das vom Vater herstammende Karman (d a i v a ṃ v ā p a i t ṛ k a ṃ k a r m a k ā l a m ā ś r i t y a v a r t a t e); vgl. ferner den Hymnus auf Kāla im MBh I 1, 248 ff., den ich p. 15 mitgeteilt habe.

3) Nyberg hat in dem sogenannten 1. Vers ā n ausgelassen und liest k ā r e statt k ā r u. Sein konstruierter 3. und 4. Vers erscheint unmöglich. Der Text lautet: z a m ā n i m ā n r a m ī t u n (= a w g a n d a n) š ā y a t b r ī n p ū n z a m ā n p a δ s t a k f r ā č š k ī h ē t. Für r a m ī t u n š ā y a t hat Ms DH: r a m ī t ū n ī h ē t. Auf Grund dieser Lesart setzt Nyberg a p a k a n ī h ē t ein, allein eine solche mittelpers. Form halte ich für sehr unsicher. Im T.mp. kommen אבגנדן „werfen" und פרגנדן „ausstreuen" vor. Mit C. F. Andreas sehe ich hier die arische Wurzel g h a n mit den arischen Präfixen a b h i und p a r i. Die von Nyberg vorgeschlagene Erklärung, daß b r ī n p a t z a m ā n für p a t z a m ā n i b r ī n steht, kann durch keine Belegstelle gestützt werden. Im weiteren entspricht der aram. Maske חיא nicht g i y ā n, sondern a χ ᵛ „Leben", und h a č a n g ā m j ā n i m a r t ō m ā n darf nicht als Glosse aufgefaßt werden. Für die aram. Wörter לא על setzt Nyberg willkürlich n ē k ā a v i (!) ein. Die Konjektur n i s y ē, sowie die Annahme, daß i ā p ā n i s a r t ein Zusatz wäre, bleiben

stärker als diese 2 Schöpfungen, nämlich als die Schöpfung des Ōhrmazd und des Ahriman". Verfehlt ist es, mit Nyberg a. a. O. 233 aus diesem Satze schließen zu wollen: „Daß hier mit Zamān ‚Zeit' der höchste Gott des Zarvanismus gemeint ist, steht durch die erste Zeile des Gedichtes unumstößlich fest." Zarvān wird im weiteren als der mächtige Schicksalsgott geschildert, der über die menschlichen Geschicke verfügt und dem der Mensch weder im Leben noch nach dem Tode zu entrinnen vermag.

Aber Nyberg führt a. a. O. p. 221 noch eine andere Stelle aus dem Gr. Bund. an, die dem zarathustrischen Geiste widersprechen soll und nur aus dem Zarvanismus stammen kann; Gr. Bund. p. 8, 3 heißt es: Ōhrmazd pēš hač dāmdahišnīh rāy būt χ^vatāy u pas hač dāmdahišnīh χ^vatāy. Indem nun Nyberg annimmt, daß rāy aus lā verschrieben sei, übersetzt er: „Vor der Schöpfung war Ōhrmazd nicht Herrscher, nach der Schöpfung aber wurde er Herrscher." Allein der unkorrigierte Text lautet wörtlich: „Vor der Herrlichkeit (rāy, vgl. Dēnk. VII 3, 23) der Schöpfung war Ōhrmazd Herr und nach der Schöpfung Herr." [1]) Nur auf Grund

als Vermutungen in der Luft schweben. Ebenso sind urδē (für ul) und aδar (für hačaδar) hypothetische Formen. — Nicht richtig gelesen ist das Wort, das Nyberg in dem von ihm ZDMG 1928, 218 f. abgedruckten revidierten Text aus der Einl. des ind. Bund. als yāmak bzw. yam transskribiert und durch „Kleid" übersetzt. Das Wort heißt vielmehr χēmak bzw. χēm (= np. χīm) „Natur, Eigenschaft" und kommt z. B. Dēnk. VIII 43, 55, Mēn. i Xrat 39, 4, 24; 57, 22 f. vor. Es ist hier von den Naturen Ōhrmazds und Ahrimans die Rede und nicht von deren Kleide. Die auf Grund einer unhaltbaren Lesung von Nyberg gemachten religionsgeschichtlichen Folgerungen sind demnach unhaltbar. In der Zarathustra-Religion wird niemals vom Kleide Ahrimans bzw. der Dämonen gesprochen, wohl aber vom „Gefäße der Dämonen" (vgl. Scheftelowitz p. 50 f.), dagegen sind die arischen Götter in ein Lichtgewand gehüllt (vgl. Scheftelowitz a. a. O. 144). Auch der von den Iraniern entlehnte Dualismus der Mandäer spricht von der Natur des Lichtgottes und des Finsterniskönigs: „Zwei Könige waren da, zwei Naturen wurden geschaffen, ein König dieser Welt und ein König von außerhalb der Welten" (Johannesb. übers. Lidzbarski p. 55).

1) Ausdrücklich betont Mēnōk i Xrat 8, 8, daß Ōhrmazd die Schöpfung „aus seinem Lichte" (hač ān i χvēš rōšanīh) erschaffen hatte.

von gesicherten Lesungen darf man religionsgeschichtliche Schlüsse ziehen.

Zarvān (bzw. Zamān) als Herr über die Geschicke begegnet man auch sonst im Mittelpersischen. Zaδspar. IV 5 heißt es: „Es war ein Beschluß des die Geschicke bestimmenden Zarvān (bringar Zarvān): Für 30 Jahre erschaffe ich Gayomard in Unversehrtheit des Lebens." Ähnlich lautet Gr. Bund. 68, 15 f.: „Wie es Zamān vor dem Angriff (Ahrimans) gesagt hatte, daß dem kraftvollen Gayomard für 30 Jahre Leben und Herrschaft geschaffen sei." Gemäß Mēnōk i χrat (c. 8, 11) ist Zarvān akarana die unendliche Zeit, die aber begrenzt wurde, nachdem Ōhrmazd mit Ahriman ein Pakt geschlossen hatte. Mit Beginn der Weltschöpfung ist er ins Dasein getreten und hat dem Ōhrmazd seine Huldigung dargebracht: „Der Schöpfer Ōhrmazd schuf diese Schöpfung und die Aməšaspəntas und den Geist der Weisheit aus seinem Lichte unter dem Lobpreis der endlosen Zeit" (c. 8, 3). Die Rangordnung Zarvāns in der Zarathustra-Theologie der Sasanidenzeit läßt sich aus 8, 15 erschließen: Srōš, Miθra, Zarvān akarana, der Geist der Gerechtigkeit (Mēnōk i dātastān), das Geschick (baχt) und das göttliche Los (bagōbaχt) werden in der Endzeit sämtliche Wesen Ahrimans vernichten. Zarvān akarana steht hier unter Srōš und Miθra, und ihm folgen ganz junge Gottheiten. Nach Gr. Bund. p. 277, 4 ff. wird Ōhrmazd im Vereine mit den 6 Aməšaspəntas und mit Srōšahrē sämtliche Dämonen in der Endzeit besiegen, hingegen betont Yašt 19, 95 f., daß die Genossen des Heilands Astvatərəta den Aēšma in die Flucht schlagen, während Vohumanah, Haurvatāt und Amərətāt die übrigen Dämonen besiegen werden. Also in der älteren Überlieferung hat Zarvān akarana nebst den ihm folgenden Gottheiten, wie sie im Mēnōk i χrat aufgezählt werden, überhaupt keinen Platz.

Unter dem Einfluß des Zarvanismus wird nun in 27, 10 f. die jungawestische Gottheit „lang freischaltende Zeit" (zrvan darəγo·χᵛadāta) als die höchste Schicksalsgottheit gefeiert: „Die Handlungen der Welt gehen vonstatten durch das Geschick (bahr), die (endlose, aber später begrenzte) Zeit

(zamān) und die höchste Entscheidung des von selbst existierenden Zarvan, des Königs und lang Herrschenden. Daher stößt einem jeden Menschen in jeder Periode dasjenige Geschick (baχt) zu, das ihm bestimmt ist" (27, 10 f.). Das Geschick steht aber in enger Beziehung zu den Planeten. Letztere sind die Vollstrecker des Geschicks: „Alles Gute und Üble, das den Menschen und den übrigen Wesen begegnet, kommt durch die 7 Planeten und die 12 Tierkreiszeichen" (Mēn. i χrat 8, 17, vgl. Škand Gum. IV 28 ff.)[1]. Wir finden somit hier den bereits im jungen Awesta uns begegnenden Zusammenhang Zarvāns mit den Planeten wieder.

Ähnlich steht in der Inschrift des Antiochos I. von Kommagene „die grenzenlose Zeit (χρόνος ἄπειρος)"[2] in enger Beziehung zum Schicksal, vgl. Dittenberger, Orientis Graeci Inscr. Nr. 383, 111 f.: Die Generation aller Menschen, „welche die grenzenlose Zeit zur Nachfolge in diesem Lande durch das eigenartige Lebenslos (ἰδίᾳ βίου μοίρᾳ) bestimmen wird", sollen das hier erlassene Gesetz halten. Daß schon zur Zeit Antiochos' I. der Zarvanismus existiert habe, läßt sich aus dieser Stelle nicht erschließen, denn ausdrücklich erkennt dieser König den Ὡρομάσδης als oberste Gottheit an (Z. 41. 52). Jedenfalls hat im 1. Jahrh. v. Chr. bereits die Schicksalsgottheit Zarvan existiert.

Gerade durch die Astrologie[3] ist der Glaube an das unab-

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1) Genau dieselbe Anschauung finden wir bei Firdōsi (ed. Vullers) vgl. p. 3, 15 ff.: „Ueber die 12 (Sternbilder), wurden die 7 (Planeten) Führer, sie nahmen ein jeder den geeigneten Platz ein; durch sie wird Glück und Bestimmung offenbar" (ābār dāh we-dū hāft šud kādχudāī, giriftānd hār yāk sāzāvār jāī, dār-ū bāχšiš we-dād āmād pādīd).

2) Unabhängig von Iran wird seit Aristoteles von griechischen Philosophen die Zeit als „grenzenlos" (ἄπειρος), ferner als „ungeworden" (ἀγένητος) und „unvergänglich" (ἄφθαρτος) aufgefaßt (vgl. J. Kroll, Hermes Trismegistos p. 191). Aristoteles schildert in seiner Schrift De caelo II 1 den ewigen Himmel als ἀρχὴν μέν καὶ τελευτὴν οὐκ ἔχων τοῦ παντὸς αἰῶνος, ἔχων δὲ καὶ περιέχων ἐν αὐτῷ τὸν ἄπειρον χρόνον, M. Zepf. Arch. R. W. 25, 227.

3) Über die Astrologie der Perser vgl. Scheftelowitz Z.I.I. IV 326 ff. Noch heutzutage haben die Parsen eine gewisse atavistische Verehrung

änderliche Schicksal derart in den Vordergrund gerückt, daß es als eine mächtige Gottheit angesehen worden ist. Und ebenso wie in Indien ist die Zeit auch in Iran zur mächtigsten Schicksalsgottheit geworden. Noch Firdōsi kennt die „Zeit" (zämānäh) in der Bedeutung „unerbittliches Geschick, Schicksalsgott", wofür ich zahlreiche Beispiele anführe; p. 38, 9: „Die Höhe des Thrones ist dir das Siegel des Zämānäh (= Glücksgotts), die Welt ist dir licht wegen des ausgezeichneten Glücks" (nigīn i zämānäh sär i täχt tust, jähān rōšan äz nāmvär bäχt tust); p. 20. 45: Zämānäh (= der Schicksalsgott) gewährte ihm (Hōšäng) keine lange Lebenszeit" (zämānäh nä däd-äš zämānī diräng); p. 100, 12: „da wir nicht hoffen, daß der Schutz des Zämānäh (= Schicksalsgotts) uns sicher sei" (kih pušt i zämānäh nä-dīdīm rāst); p. 115, 11: kih dāräd zämānäh nišīb u färāz „denn der Schicksalsgott hat in seiner Hand den Abstieg und Aufstieg"; p. 145, 5: „Zämānäh bringt deinetwegen ständig Freude" (zämānäh hämī äz tū rāmiš bärd); p. 255, 2: Āwärd pēšäm sär-etrā zämān „Zämānäh führt mir deinen Kopf zu", sagte der Held Barmān zu Kobād, dem er darauf im Zweikampf den Kopf abschlug; p. 324, 10: „Keiner kann aus seinem Körper den Tod entfernen, keiner kann das Auge des Zämānäh mit der Nadel durchbohren" (näh märg

für die Astrologie bewahrt und führen keinen irgendwie bedeutenden Akt in ihrem Leben aus, ohne die Gestirne zu befragen (P. Mantegazza, Indien, Jena 1885, 57). Firdōsi gibt uns gerade davon ein klares Bild, vgl. (ed. Vullers) p. 60, 10: „Gemäß der Offenbarung der Sterne ist euer Land herrlich" (be-fāl i āχtār būm i tān rōšān äst). Fird. p. 77, 6 ff.: „Dann brachte er (Feridūn) die Aufzeichnung von dem Sternhimmel der sich drehenden Himmelssphäre (girdān sipihr) herbei, dessen Aspekte die Astrologen angaben; er legte sie vor sich hin, betrachtete die Konstellation seiner ruhmreichen Söhne. Unten fand er für Salm unter den Konstellationen das Zeichen; ihm war nichts außer dem Jupiter mit dem Schützen. Dann fand er den Horoskop des glücklichen Tūr, den Löwen im Zeichen der Sonne frohen Muts. Als er die Konstellation des glücklichen Irāj beobachtete, sah er den Krebs im Zeichen des Mondes. Aus der Konstellation zeigte sich dermaßen das Zeichen, daß ihm Unglück und Kampf beschieden sei." Die Sterne nehmen Anteil am Geschick; sie weinen über den Tod der Helden (Fird. 908, 13).

äz tän χᵛīš be-tavān säpūχt, näh cäšm i zämān käš be-sōzan bi-duχt); p. 503, 4: „Zämānäh dürstet nach deinem Blute“ (zämānäh beχūn i tū tišnäh šäväd); p. 503, 6: „Zämānäh hat in deine Hand die Macht über mich gegeben“; p. 482, 5: „Zämānäh hat anders vorgeschrieben als man glaubte“; p. 513, 7: „Zämānäh hat ihn mit seinem Heere herangeführt, daß er hier durch deine Hand vernichtet werde“; p. 516, 12: „Wem in der Welt ist (soviel) Verstand und Weisheit, so daß er die Hinterlist des Zämānäh (firīb i zämänäh) erträgt“; p. 677, Z. 7: „Zämānäh erregte in seinem Herzen Liebe“; p. 717, 10: „Zämānäh hat ihn der Vernichtung preisgegeben“; p. 881, 10: „Wir wollen sehen, zu wem Zämān sich wendet“; p. 981, 6: „Es gibt keinen Rettungsweg, sobald Zämān sich wegwendet“; p. 1025, 1: „Mögen die Erde und Zämān dir wohlwollend sein“; p. 1032, 13: „Wenn ihn Zämān (= Todesgeschick) durch deine Hand erreichen wird“; p. 1055, 13: „Wenn einer dem Tode hätte trotzen können, würde ihn die Gewalt des Zämānäh (zämānäh päy) nicht ins Wanken bringen“; p. 913, 8: „Zämānäh unterjocht ihn“ (Zämānäh wärä zēr pay bisipärd); p. 449, 2: „Zämānäh hat mich zum Zerschmetterer deines Helmes gemacht“; p. 211, 9; p. 1006, 11: „Zämānäh zählt beständig unsere Atemzüge“ (Zämānäh dam i mä hämī bišumäräd); p. 1464, 1: „Zämānäh möge in seiner Güte mein Recht gewähren“; 1492, 2: „die Handlung des Zämān geht nach deinem Wunsche vonstatten“; 1777, 6: „Zämānäh war gegen diese Krieger schlimm“ [1]).

Zämān (bzw. Zämānäh) leitet also die menschlichen Geschicke, er ist seinen Günstlingen gegenüber „wie eine liebevolle Mutter“ (čūn mihrbān mädär äst, p. 409, 7); er allein bestimmt die Lebensdauer. Auf hinterlistige Weise vernichtet er, der nicht zu überwältigen ist, die Wesen. Ebenso wie der

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1) Daneben kommt ebenso wie im Mittelpers. auch bei Firdōsi bäχt als Glücksgott vor (vgl. Z.I.I. IV 331); so Fird. p. 245, 5 (ähnlich 1037, 1): jähān gärdäd ābād γumīdäh šud ān bäχt i bēdār; p. 245, 8: az bäχt i ūy; p. 909, 4 „das Glück als der Herr der Welt nimmt dir die Herrlichkeit“ (furuγ äz tū gīräd jähandār i bäχt).

indische Zeitgott Kāla ist er auch der Todesgott geworden, der mit seinen Klauen sein-Opfer anpackt (cäng i zämänäh räsīd ändär ūy, p. 314, 12). „Als mächtiger Mann kommt nämlich Zämān, Zämān kommt gleichzeitig mit dem Tod heran“ (p. 255, 5: bäjäyi tuvān märd käyäd zämān, nīāyäd zämān bī zämān yäkzämān). „Das Todesgeschick war herangekommen, ihm (Suhrāb) entschwand die Kraft“ (p. 502, 14: zämānäh sär āmäd nä-būd-äš tuvān). „Der Löwe im Walde und der mannhafte Drache entgehen nicht der Klaue des Todesgeschicks“ (p. 1750, 7: bäh bīšäh därūn šīr wä-närr i aždāhā zä cäng i zämānäh nīābäd rahā). Seiner Allgewalt entrinnt also niemand. Diese Beispiele zeigen uns deutlich, wie Zarvān im Zarvanismus zum allgewaltigen, absoluten Gott werden konnte.

Auf die ursprünglich innere Beziehung von Zeit und Astrologie [1]) weist noch der Umstand hin, daß mittelpers. spihr „die sich drehende Himmelssphäre, die die Gestirne enthält“, einerseits die Bedeutung „Geschick“ erhalten hat (Mēnōk i χrat 2, 28), andererseits dem Ōhrmazd bei der Schöpfung Zarvāns geholfen hat (Zāδspar. 1, 24). Auch bei Firdōsī gehören „Zeit“ und „Himmelssphäre“ eng zusammen; p. 567, 10: „Ich wünsche keinen anderen Zämānäh (= Schicksal), als den die Himmelssphäre (sipihr) entsendet“; p. 960, 4: „So ist das Charakteristikum der Himmelssphäre und des Zämān, bald ist man in Kummer und Schmerz, bald freudevoll“ (čunīn äst räsm i sipihr u-zämān, gāhī bā γam u därd we gāh šādmān).

Die Auffassung, daß die Zeit endlos ist, ist nicht uriranisch, weshalb sie uns noch nicht in den ältesten Teilen des Awesta entgegentritt. Der Glaube an die Jenseitswelt, in der das individuelle Leben sich dereinst vollendet und der Unvergänglichkeit teilhaftig wird, hat es wohl bedingt, daß

1) Am königlichen Hofe Persiens waren Astrologen (sitārehšumarān bzw. aχtāršināsān Fird. 1772, 16; 1716, 12) angestellt. Das Buch Esther, das uns die jüngere Achaemenidenperiode schildert, bezeichnet die Astrologen als „Zeitenkenner“ (ידעי העתים 1, 13), wie sie auch in Indien genannt wurden; vgl. kālajña, ferner kālacintaka (Gauḍapāda's Kārikās 1, 8).

schließlich die Zeitdimension als endlos, ewig aufgefaßt worden ist. Dadurch, daß man die charakteristische Eigenschaft der Zeit in dem „Zermürben" gesehen hat, hat wohl Zrvan die Bedeutung Zeit erlangt, denn dieses Wort bedeutet eigentlich „Zermürbung", es ist urverwandt mit ahd. chrouwōn „kratzen", mhd. krouwen, afries. krawa. Ähnlich heißt das arabische Wort für „Schicksal" al-manūn eigentlich „der Zermürber" [1]).

13. Die Entstehung des Zarvanismus unter dem Einfluß der Astrologie.

Die Zeit personifiziert einerseits das Glück und das schlimme Verhängnis, andererseits bestimmt sie als allmächtige Schicksalsgottheit das Geschick, das durch die Planeten bzw. durch die Himmelssphäre offenbart wird und zur Ausführung gelangt [2]). Daß auf solche Vorstellungen der Zarvanismus zurückgeht, deutet auch der Umstand hin, daß der Zarvanismus mit der Astrologie eng verquickt gewesen war. Darauf weist auch das von mir edierte und bearbeitete manichäische Fragment T III 260 d hin (vgl. Oriens Christianus, 3. Serie I 279 ff., ZJJ. IV 317 ff.): „Und der unverständige, mit einer üblen Seele versehene Gierdämon Āz hielt ihn (den Urmenschen) fest, bis dieser Zāmān und der Stern, unter welchem dieser Sprößling (= Urmensch) geboren wurde, erschienen. Ihn überwand infolge seiner Helfer (= Zamān und der Stern), welche überlegener als der Gierdämon waren, nicht mehr irgend welcher Druck." Der manichäische Begriff Za-

1) Dem Gedanken der Zermürbung durch die Zeit begegnet man häufig bei Firdōsi, vgl. p. 5,3: „Nicht zermürbt der Wandel der Zeit sie (die Himmelswölbung) (nāh gäšt i zāmānāh bi-fārsāyād-āš).

2) Über den Zusammenhang der Zamān-Vorstellung mit entsprechenden babylonischen vgl. H. Zimmern, Sīmat, Tyche, Manāt, in Islamica II (1927), 584. Zamān ist ein rein semitisches Wort (assyr. simānu), H. Zimmern bei H. Junker a. a. O. p. 156. Unter dem Einfluß dieses zamān ist auch mp. *zarvan zu zarvān geworden. Über die Beziehung des Zarvanismus zur mandäischen Religion siehe Scheftelowitz, M.G.W.J. 1929, 228 f.

mān (bzw. Zarvān) stammt aus dem Zarvanismus des 3. Jahrhunderts, hat aber im Manichäismus eine kleine Änderung erfahren. Ausdrücklich wird dort hervorgehoben, daß Zarvān „unser Vater, der Großkönig und Himmelsfürst" ist (vgl. v. Lecoq, Türk. Man. III 12. 15); jedoch ist es verboten, ähnlich den Zarvaniten anzunehmen, Ōhrmazd und Ahriman seien ursprünglich jüngere und ältere Brüder, d. h. Söhne des Gottvaters Zarvan, oder daß „das Gute und das Böse", „das Leben und der Tod" von Zarvān herrühren [1]). Gemäß syrischen und abendländischen Kirchenvätern hat Māni ebenso wie der Mandäismus gelehrt, daß seit Urbeginn zwei von Natur verschiedene unsterbliche, weltschöpferische Geister existiert haben, „einen König dieser Welt und einen König von außerhalb dieser Welten". Diese beiden Prinzipien werden also voneinander unabhängig, selbständig und anfangslos geschildert. Die das manichäische System bekämpfenden Kirchenväter, sowie arabische Schriftsteller gehen gerade auf diese Vorstellungen von den zwei einander entgegengesetzten absoluten Urprinzipien ausführlich ein. Die manichäische Religion hat ähnlich der mandäischen und zarathustrischen einen stark ausgeprägten Dualismus. An Stelle der iranischen uranfänglichen Geister Ōhrmazd und Ahriman sind jedoch „Zeit" (z a r v ā n = z a m ā n) und „Begierdedämon" (Ā z) als die sich widersprechenden Urprinzipien angenommen worden, wobei diese Himmelsgottheit Z a r v ā n dem mittelpersischen, zarvanitischen System der Iranier entsprechend mit der Astrologie eng verknüpft ist. Diese urmanichäische Auffassung finden wir in unserem Turfanfragment. Um aber die Zarathustrier für den Manichäismus zu gewinnen, sind später auch Ōhrmazd und Ahriman übernommen worden, indem Ōhrmazd der zarvanitischen Sekte entsprechend als Sohn Zarvāns betrachtet wurde, hingegen Ahriman mit dem Sprößling des Urprinzips des Bösen, des Gierdämons (Āz) identifiziert wurde und in keiner verwandtschaftlichen Beziehung zu Ōhrmazd steht, was dem eigentlichen Zarvanismus widerspricht.

1) Chuastnanift I vgl. W. Bang, Der manich. Laien-Beichtspiegel, Muséon 1925, 147.

Der wohl seit dem 1. Jahrhundert v. Chr. sich im persischen Reiche verbreitende Glaube an die allmächtige Schicksalsgottheit Zarvān hat allmählich die Macht Ōhrmazds beschränkt, denn nicht mehr er, sondern Zarvān teilt Segen und Fluch aus und bestimmt den Tod. Die Weltregierung ist somit auf Zarvān übergegangen. So konnte der Zarvanismus aufkommen, gemäß welchem Zarvān der einzige uranfängliche Gott ist. Er stellt demnach den Sieg des aus der Astrologie hervorgegangenen Schicksalsglaubens über die offizielle Religion dar [1]). Daß durch die Astrologie der Begriff Schicksal sich zu der Bedeutung einer mächtigen Gottheit entwickeln kann, sehen wir nicht nur in Indien, sondern auch in der griechischen und römischen Kultur. Unter dem Einfluß des Orients kam auch bei den Antiken der Glaube auf, daß jedem Menschen ein Stern gegeben ist, der mit ihm entsteht [2]). Schicksal und Geburtsstunde bestimmen den Menschen, vgl. Seneca, de prov. 5, 7: Fata nos ducunt et quantum cuique restet, prima nascendi hora disposuit; ferner Tacitus, Annal. IV 20: Fato et sorte nascendi. Das Geschick des Menschen steht vornehmlich mit den 7 Planeten in enger Verbindung (vgl. Tacitus, Hist. V 4: septem sideribus, quis mortales res reguntur). Da vor dem unwandelbaren Geschicke, das schon in der Stunde der Geburt und durch die Konstellation der Sterne festgelegt ist, die Götter ebenso ohnmächtig sind wie die Menschen, ist es verständlich, daß bei den Antiken das Geschick schließlich als die absolut herrschende Gottheit angesehen wurde. Die hellenistische Tyche, die allwaltende Schicksalsgöttin ἡ πάντων Τύχη, ist in der römischen Kaiserzeit geradezu zur Allgottheit geworden

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1) Über die Astrologie in der Sasanidenzeit vgl. Gr. Bund. p. 50, 15—54, Scheftelowitz, Altpers. Religion u. d. Judent. 225. Die Angabe des Dēnk. VIII c. 5, daß des Sasaniden-Awesta ein besonderes, aus 35 Kap. bestehendes astrologisches Nask namens Vaχtar enthielt, fußt nur auf der Pehlewi-Version des Awesta, dem er den gleichen Wert zuschreibt wie dem Awesta-Original. Übrigens lag dem Autor nach seiner Angabe nicht einmal die Pehlewi-Version von dem Nask mehr vor.

2) Vgl. Boll, Die Entwicklung des astronomen Weltbildes 1913, 43 ff., H. Greßmann, Die hellenistische Gestirnreligion 1925.

und hat in Rom einen eigenen Tempel erhalten. „Unter den universalen Einheitsgöttern, die sich in den Vorkämpfen des Monotheismus um die Alleinherrschaft stritten [1]).“ Plinius sagt N. H. 7, 27: „So sehr sind wir dem Geschick unterworfen, so daß das Geschick selbst als Gottheit gilt.“ Wo also die Astrologie einen nachhaltigen Einfluß ausgeübt hat, ist es nicht mehr Gott, auch nicht das Wollen und Handeln des Menschen, die das Menschenschicksal bestimmen, sondern das unabwendbare Fatum, das teils neben, teils über allen Gottheiten steht. Erst nachdem die Astrologie in Iran zum festen Glaubensbestandteil geworden war, hat der Zarvanismus erstehen können. Da nun aus den älteren Awestateilen eine Kenntnis der Planeten nicht erschlossen werden kann und die iranischen Planetennamen auf ein junges Alter hinweisen, so wird die Astrologie frühestens erst in der jüngeren Achämenidenperiode in Iran festen Fuß gefaßt haben. Zarvān kann demnach unmöglich zu den uriranischen Gottheiten gehört haben. Ebensowenig wie im orthodoxen Brahmanismus ist auch in der offiziellen Zarathustra-Religion die Schicksalsgottheit „Zeit“ zur obersten Gottheit geworden.

14. Hauptergebnisse der Untersuchung.

1. Die den Veden noch fremde Astrologie ist spätestens im 4. Jahrhundert in Indien heimisch.
2. In den Epen, in denen die Astrologie als ein fester Bestandteil der Religion erscheint, tritt uns zuerst der Glaube an ein unabwendbares, allmächtiges Fatum entgegen.
3. Das Fatum, das gerade im Volksglauben eine bedeutende Rolle spielte, ist unter die Unterweltgottheiten eingereiht worden.
4. Unter den Schicksalsgottheiten nimmt Kāla „Zeit“ die höchste Stellung ein. Kāla ist unter dem Einfluß der Astrologie der allgewaltige Schicksalsgott geworden. Er

1) Vgl. P. Wendland, Die hellenistisch-römische Kultur [2] 104; Usener, Götternamen 338.

hat nichts zu tun mit der älteren philosophischen Kāla-Spekulation, die in ihm das eine göttliche Urprinzip sieht.

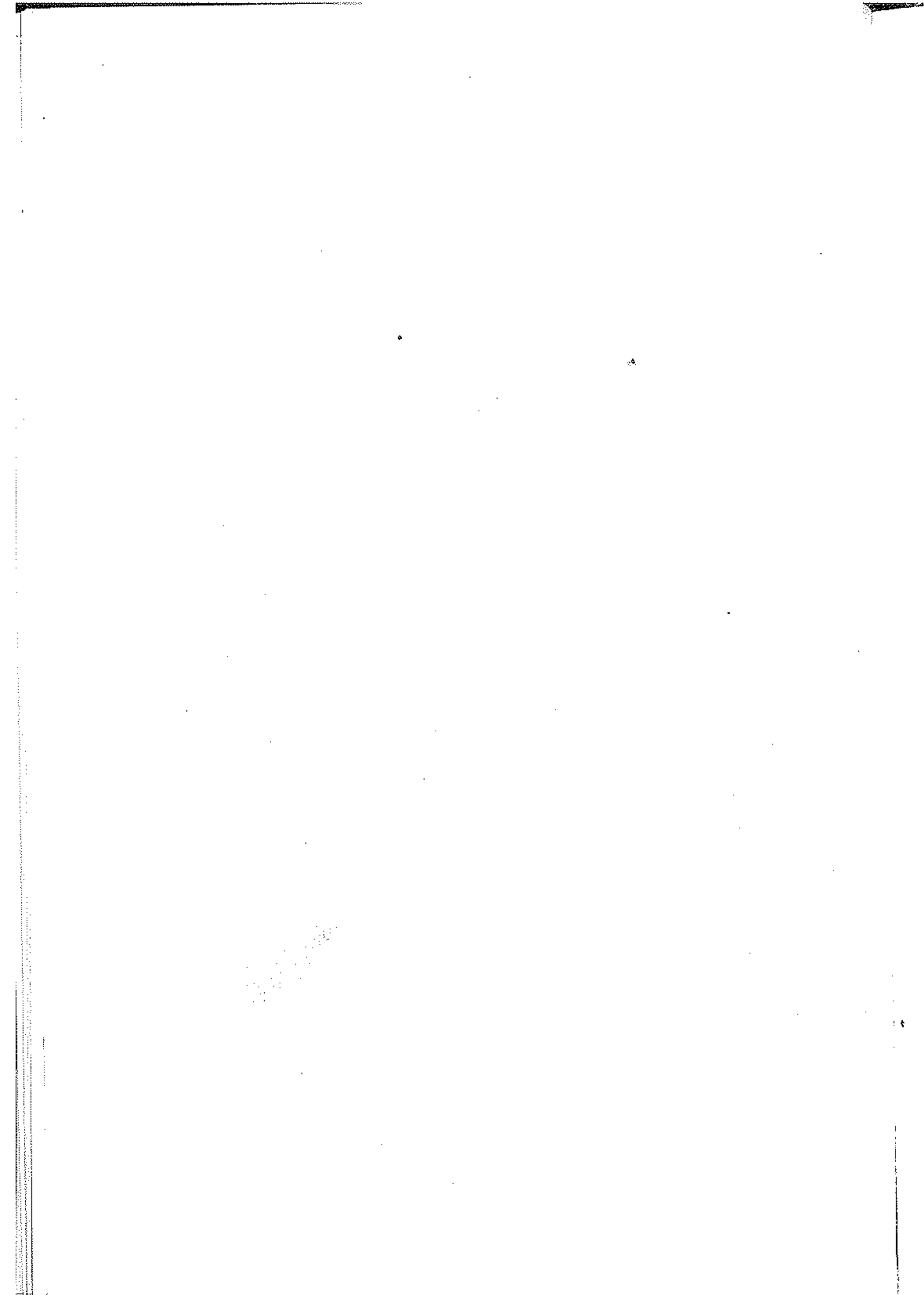
5. Kāla ist dem Yama untergeordnet, dagegen Mṛtyu dem Kāla. Als Unheilsgott ist er dann auch mit den Waffen der Unheilsgötter versehen worden. Nach einer anderen Schule steht Kāla sogar an der Spitze der Unterweltgottheiten.
6. Einer viel jüngeren Spekulation gehört die Vorstellung an, daß Kāla von Karman abhängig ist. Ja Kāla personifiziert geradezu Karman; hierdurch ist Kāla mit den Lehren der offiziellen Religion verquickt worden.
7. Die Wesen haben keinen freien Willen, sondern folgen dem Zwange des Kāla.
8. Erst in den jüngsten Büchern des MBh erscheint Kāla, beeinflußt von der philosophischen Kāla-Spekulation, als eine Form des einen göttlichen Urprinzips. Jedoch hat der offizielle Hinduismus dem Kāla nicht die höchste Stellung eingeräumt.
9. In jüngeren Ritualwerken ist Kāla mit Yama gleichgesetzt worden.
10. Die dem Kāla ähnliche iranische Zarvān-Vorstellung ist nicht mit ihm urverwandt. Bereits der urarischen Religion war eine Art Dualismus eigen.
11. Der Zeitgott Zruvan kommt erst in den jüngsten Awesta-Teilen in Verbindung mit den Gestirnen vor.
12. Zruvan als Schicksalsgottheit finden wir erst in den mittelpersischen Schriften und bei Firdōsi; auch hier steht er in engem Zusammenhang mit den Planeten.
13. Daß der Zarvanismus erst unter dem Einfluß der Astrologie hervorgegangen ist, darauf weist das manichäische Fragment T III 260 d hin.

Sachregister.

Druckfehler-Berichtigung.

S. 14 letzte Zeile lies: pratyakṣaṃ.
S. 19 Zeile 15 lies: Vaivasvata.
S. 23 Zeile 36 lies: Kāla.





From the Great Goddess to Kāla

Jean Przyluski

The Sanskrit dictionaries distinguish *kāla* thus:

1 *kāla*, dark blue, black,

2 *kāla*, time, fate, death, god of death.

Kāla is also an epithet of Śiva, and Kāli is a form of Durgā. The first problem is to know whether Kāla means the Black god only and Kāli the Black goddess, or if those names allude to Time also, the destroyer of everything. This question is but one aspect of a more general problem: are *kāla* 'black' and *kāla* 'time, fate' two distinct words, or are there two different senses for the same word?

This is a very important problem for the history of Indian thought. Several authors have supposed[1] that Skt. *kāla* has been borrowed from the Dravidian *kār* 'black', and this origin is a likely one. If 'black, time, fate, death, etc.' were different senses of the same word, it would be necessary to ascribe a non-Aryan origin to an essential element of the religious and philosophical vocabulary.

In a recent article *The name Kalki (n)*, published in the *Adyar Library Bulletin*, vol. I, part I, p. 21, n. 1, Prof. F. Otto Schrader has clearly adopted a position:

> "There is in Pāli, by the side of the Sanskritic *kāla* 'time', a non-Aryan word for 'black', viz., *kāḷa*. But neither this nor Sanskrit *kāla* 'black' can have a common origin with Sanskrit *kāla* 'time', because the latter word was originally (in *Ṛgveda* X, 42, v. 9 and the older Brāhmaṇa literature) used only in the sense of a definite or recurrent time (like Vedic *ṛtu*) and but later employed in the abstract sense and that of the great Destroyer which led to its association with *kāla* 'black' ".

This reasoning is not very convincing. *Kāla* 'time' is a late comer in Vedic literature. Because it has a definite meaning in certain religious texts, one cannot assert that it may not have been given a wider sense in the spoken language. It is in the Brāhmaṇas

1 See C. Regamey, 'Bibliographie analytique des travaux relatifs aux éléments anaryens dans la Civilisation et les langues de l'Inde', *BEFEO.*, 1935, index, s.v. *kāla*.

only that *kāla* is used, regularly enough, in the sense of *ṛtu*. It appears only once in later *Ṛv*. But in *Atharvaveda*, XIX, 53 and 54, it means already Time, the power of which is connected with Fate and the order of the world.

"Kāla generated yonder sky, Kāla also these earths; what is and what is to be stands out sent forth by Kāla.

.........all worlds by the *bráhman* having conquered, this Kāla goes on as highest god."

AV., XIX, 53, 5 and 54 in fine.

'Black' and 'time,' fate' are not the only senses of *kāla*. The *Divyāvadāna*, p. 617, reads thus: tadyathā vastram apagatakālakaṃ rajanopagataṃ raṅgodake prakṣiptaṃ samyag eva pratigṛhṇīyāt evam eva prakṛtir bhikṣuṇi tasminn evāsane niṣaṇṇā caturāryasatyāny abhisamayati sma.........[2]

A similar formula is found again in *Dīgh. Nik.* (I, p. 110): seyyathā pi nāma suddhaṃ vatthaṃ apagatakāḷakaṃ sammad eva rajanaṃ paṭigaṇheyya, evam eva brāhmaṇassa Pokkharasādissa tasmiṃ yeva āsane virajaṃ vītamalaṃ dhamma-cakkhuṃ udapādi.........

The latter quotation has been translated by T. W. Rhys Davids (*Dialogues of the Buddha*, I, p. 135) in the following way:

"And just as a clean cloth from which all stain has been washed away will readily take the dye, just even so did Pokkharasādi, the Brāhmaṇa, obtain, even while sitting there, the pure and spotless Eye for the Truth........."

Pāli *kāḷaka* and Skt. *kālaka* mean not only 'black', but also 'stained (adj.), a stain (nt.)' and the extracts that we have just quoted link evidently together the notions of physical and of moral stain, of dirt and of sin. The opposition of the two colours white and black is doubled by the contrast: pure and impure.

One may probably connect with the same root Skt. *kalka* 'foulness, baseness, guile, sin', and *kaluṣa* 'dirty, impure, turbid; dirt, impurity.' If the origin of those words was an Aryan one, we could not without some difficulty connect *kalka* with *kāla*; but the moment one admits as the origin of those words a non-Aryan root *kăl*, every obstacle disappears: the quantity of the vowels, we know, can vary in borrowed words.

2 Plato makes a similar comparison in *The Republic*, IV, 429 d, e.

'Dirty, guile, sin' suggest 'unlucky'. *Kali* is a die or the side of a die marked with one dot, and looked upon as inauspicious; by extension *kali* means the fourth and worst age of the world and *Kalki* (*n*) is the name of a mythical personage who is to appear during the Kali age. It seems impossible not to bring back all those words to the same root. Kalki (n), by its formation, can be compared to *kalka*. But other ideas have intervened in the formation of this derivative.

Marc Collins has connected with the moon the Skt. words *kāla, kalā, kalpa* and he has explained the sense of *kāla* 'dark, black, god of death' in connexion with the Dravidian name of the new moon.[3] The same semantical relation can be observed in different Indochinese and Indonesian tongues. In Cham, *klam* means 'evening, night, darkness' and refers particularly to the nights of the second half of the moon. One can compare to the Cham word: Bahnar *klam*, Dayak *kalam*, Malay *kelam*. Without entering into a discussion here about the problem of the relations between the Dravidian and the Austric languages, let it suffice to observe that a root *kǎl*, meaning 'black, obscure' may have been used to describe the dark fortnight of the lunar month and, by extension, the ultimate age of the world, that which leads to destruction and to death. This gives us new reason to connect with *kāl* 'dark, black', not only *kali* 'the fourth and worst age of the world', but *kāla* understood as Time, the destroyer and the god of Death.

In short, we find in India a dualistic system where two series of notions oppose each other:

white	pure	auspicious	bright fortnight	propitious god
black	impure	inauspicious	dark fortnight	terrible god and especially the God of Death.

3 'On the Octaval System of Reckoning in India', *Dravidic Studies*, n. 4, 1926.

If the root *kāl* meant all that is black and terrible, it may have served to describe the other terms belonging to the same series. The applications of such a principle in the religious domain are wider than is believed generally.

In the *Aśokāvadāna*, the nāgarāja Kālika is evoked by king Aśoka during his pilgrimage to the holy places. The texts say that the king of the nāga went to Śākyamuni as he sat by the Bodhi-tree and began to praise him.[4] In the *Mahāvaṃsa*, the same dragon appears before Aśoka, who subdues it and loads it with chains; it is called "Mahākāla, king of the nāgas, the power of which is marvellous, who has seen four Buddhas and lived throughout a kalpa."[5] Here we have a Buddhist personification of Kāla, Time, in the shape of a nāga. Unlike that of Zrvan akarana, its reign does not last for ever; but the length of it is that of a *kalpa*.

One could trace in Hinduism and even in Indonesia the mythical figure of Kāla personified in the shape of a serpent. It will suffice to note here that in Iran the monstrous and fiendish serpent which is put to death at the end of world can also be found. According to the *Bundahisn*, the fight against the evil powers ends by the destruction of both Druj: Aṅgra Mainyu and the Serpent (Až, that is to say Aži- Dahāk). Chained by the means of the girdle-formula (afsārīha) the serpent is finally burnt to death in the melted metal.[6]

In parallel with the traditions which show *Kāla* in the shape of the serpent, other beliefs associated him with the horse, either because the horse is his *vāhana* or because he appears like a horse himself.

In the first *Kālasūkta* of the *AV.*, "Time drives (*vah*) a horse with seven reins, thousand eyes, unaging, possessing much speed;

4 *Divyāv.*, p. 392. Cf. J. Przyluski, *Légende de l'Empereur Aśoka*, pp. 113, 114, 255.

5 Cf. *Mahāvaṃsa*, V, 87-92. In another part of the *Mahāv.*, chap. 31, v. 17 ff. Kālanāga seems to enjoy sovereignty over all the *nāgas*.

6 Analysis and critical study of the sources in Abegg, *Der Messiasglaube in Indien und Iran*, p. 218.

him the inspired poets mount; his wheels are all beings" (*AV.*, XIX, 53, 1). In the following verse, it appears that Kāla "includes all those beings",[7] so it is difficult indeed to distinguish the god, the wheels and the horse.

In later literature and iconography, Kalki is pictured as a horse, as a god with a horse's head or as a god riding on a horse.[8]

According to the Jainas, wicked kings named Kalkin and Upakalkin appear periodically during the periods of decline (*duḥsamā*): every 1,000 years comes a Kalkin, every 500 years an Upakalkin. Here *Kalkin* means probably 'wicked, unlucky', that is to say, it has the same value as Skt. *khala* 'wicked person, rogue'. We know that in borrowed words, *k* and *kh* can alternate.[10] By their periodicity the Kalkin and Upakalkin of Jainism are evidently in relation to Kali and to the theory of the ages of the world.

In the Purāṇa, Kalki or Kalkin is an independent personage no more: he is absorbed in Viṣṇu, an *avatāra* of whom he becomes. In the *Viṣṇupurāṇa*, four avatāras of Viṣṇu, named Kapila, Cakravartin, Vyāsa and Kalki succeed one another periodically during the successive *yugas*. In the *Kalkipurāṇa*, Kalki has become Viṣṇu's tenth avatāra and his legend has been partly modelled upon Kṛṣṇa's.[11] But before he has become a kind of Messiah and is identified with Viṣṇu, Kalki has probably had something to do with the destruction of the world; ever since the origin he is probably one of the forms of god of Death and of Time which destroys everything. And in the later forms of his legend, even, he remains connected with the Kali age and with the end of the world.[12]

7 This extract is discussed in Lanman-Whitney's *Atharva-Veda*, VIII, p. 987.

8 Abegg, *ibid.*, p. 47 and plates.

9 Abegg, *Messiasglaube*, p. 140; Bhide., 'Is Kalkirāja a historical personage?' *IA.*, 48, 1919, pp. 123 ff.

10 Note that in Cham, *khal* means 'mischievous, wicked, pernicious, fatal'; *khalam* 'illness'.

11 Abegg, *ibid.*, p. 140, n. 5, 137, 39 ff.

12 Otto Schrader tries (*ibid.*, pp. 23 ff.) to explain Kalkin by *karka* 'white'

In short, a non-Aryan root attested in Dravidian has been borrowed by Indo-Aryan under different forms: *kāl-*, *kal-*, *khal-*, *kāḷ-*, and this diversity in sounds added to the convergency of the senses is explained by the non-Aryan origin of this root. Between *kāla* 'black' and *kāla* 'time, destiny', then, a series of intermediates can be exposed, which form an uninterrupted chain: *kālaka, kalka, kaluṣa, kali, kalki,* so that one passes gradually from a concrete 'dark blue, black' to abstract and general notions 'time, fate, death.'

The question remains to be answered why a non-Aryan root, probably borrowed from the Dravidian, has attained such an importance in the religious vocabulary.

In the first section of the Ādiparva of the *Mahābhārata*, Sañjaya says to Dhṛtarāṣṭra: "Time createth all things and Time destroyeth all creatures". Elsewhere I have indicated that the double figure Kāla and Kālī is similar to the couple Jara and Jarā and that these doubles, like the hermaphroditis Zrvan, are closely connected with a myth more ancient, I mean, than that of the Great Mother, goddess of reproduction and of death, all-powerful as Destiny.[13] The excavations at Mohenjo-daro have proved that the Great Goddess was adored in India long before the Aryan conquest. She appears in Vedic literature at first under the name of Aditi which shows some connexions with the Near East.[14]

Later on, this unique figure shows a tendency to appear in different shapes, under the influence of different cultural tides. In some societies and particularly among the non-Aryan populations, the Great Goddess was still worshipped in her feminine shape. Elsewhere, under the influence of the patriarchal institutions, a mas-

and 'white horse' and concludes: "Our inquiry, then, lands in the alternative: either both names, Kalki and Kalkin, have emerged through the Prākṛt from a now lost Sanskrit original Karkin, or the incapability of explaining the earlier name Kalki (of Aryan or Dravidian origin) has caused the formation of its etymologically transparent double."

13 *IHQ.*, X, 1934, p. 429.

14 See *ibid.*, pp. 413-414.

culine god takes her place. It seems likely that in the non-Aryan populations the Great Goddess, which orders destruction and generation, goddess of Death and of Desire, should at an early date have been given the shape of Kālī, the word being understood in its many acceptations: black, terrible, etc. On a parallel line with this, when a masculine god is seen to take the place of the goddess, Kāla is also worshipped, who is at the same time the Black, the Terrible and Time the destroyer.[15] But notwithstanding the difference in sex, Kālī and Kāla are equivalent figures and which continue that of the Great Goddess. Their identity arises from the comparison between the Buddhist texts. In the verse 12 of the *Catalogue of the Yakṣa* of the Mahāmāyūrī, the tutelar genius of Benares is Mahākāla whereas in the *Candragarbhasūtra*, 1, the patroness of the same city is Mahākālī.[16] Kāla and Kālī appear here as local divinities. But their relation to Aditi prepared them to play the part of universal gods. In the Kālasūkta of the *AV*. Kāla is already the highest god. In the school of the Kālavāda he remains still an independent god, Fate or Time. Elsewhere he disappears finally in the wake of another great god: among the Śaivas, Kāla has become an epithet of Śiva; in Vaiṣṇavism, Kalki has become an avatāra of Viṣṇu.

We must refrain from simplifying this evolution where the local worships, the non-Aryan influences and contributions from the Near-East have had a share. The ideas attached to Kali and to Kalki(n) are in relation to the theory of the four ages of the world and this theory seems to have spread from the Near-East over India and over Greece. It is up to a certain point under this influence, probably, that a moral dualism, founded upon the oppositions: white—black, bright—dark, pure—impure, etc. has developed in India.

Indian eschatology includes two distinct myths: (1) the myth

15 It is not unnecessary to note that in *AV*., XIX, the *Kālasūkta* comes immediately after the *Kāmasūkta*.

16 Cf. Lévi, 'Le Catalogue géographique des Yakṣa.' *JA*., 1915, I, p. 120.

of the awful god which presides over the destruction of the world (2) the myth of the god of salvation who guides the Just to the abode of Bliss. The fact that the former god has taken the shape of a black serpent whilst the latter has sometimes been conceived as a white horse[17] is in conformity with the principles of Indian dualism. In the most ancient texts where the name of Kalki(n) can be found, that is to say in Jaina literature, Kalki(n) is a nefarious being. This is why we have endeavoured to explain his name by the means of the non-Aryan root *kāl* 'black'[18] and why we cannot agree with Prof. O. Schrader's opinion that Kalki(n) must be brought back to *karka* 'white'. Besides, we have just seen that Indian eschatology is founded upon a theory of the ages of the world where the final period, which bears the name of Kali, possesses ever since the origin a clearly marked unlucky quality. It is at a late period only that the terrible god and the solar god, the Destroyer and the Saviour have both been absorbed by the universal god: in certain texts, Kalki and the Horse are still described as two distinct avatāras of the god Viṣṇu.[19]

17 Cf. Otto Schrader, *ibid.*, p. 23.

18 Abegg, *ibid.*, notes rightly that the records which picture Kalki as a destructive god with an animal shape come from the South of India, where the Dravidian element is predominant.

19 Abegg, *ibid.*, p. 51.

I have already proposed in 1929 to bring back to the same non-Aryan root the series *kali, kāla, kalki*, and I have noted that in Santali *kal* means foe, poison, snake and in general everything that is dangerous and must be avoided (*RHR.*, Jul.-Aug. 1929, pp. 8-9); I gave these senses after Campbell's *Dictionary*. P. O. Bodding's *Santal Dictionary* (Oslo 1935) brings back Santali *kal* to Hindi *kāl*, and Prof. Otto Schrader writes: "Santal *kal* 'time, age' and 'fate, death', etc., (see Bodding's *Dictionary*) and also *kal* 'snake' (cf. Sanskrit *kāla-sarpa*) are evidently but loanwords from the Indo-Aryan of which there are so many in Santālī". (*The name Kalki(n)*, *ibid.*, p. 21, n. 1). Things are not so evident. It is possible that the Santālī language may have grown poorer in the interval between the compilation of Campbell's and Bodding's dictionaries, as the former gave a much wider sense to *kal*. Any affirmation would be unwise until the comparative study of the Muṇḍā tongues, founded upon lexicons that we do not yet possess, has thrown some light upon their relation to each other and to the Dravidian tongues.

The Kālavāda and the Zervanite System

O.G. von Wesendonk

I. Introduction

THE manner in which Mānī presented to the Sāsānian court his new doctrine seems to demonstrate that the mazdayasnian theology of that period conceived time, *zrvan-*, as the highest principle. Zarathuštra's own doctrine had been distinctively monotheistic and spiritual. But it had fallen into oblivion and had been superseded by a polytheistic system such as was the official creed of the Achaemenian empire and such as it is recorded in the later Avesta. At a certain moment religious reaction appears to have made itself felt against the alteration of the true spirit of Zarathuštra's teaching. In trying to reconstruct this doctrine the mazdaïst theologians had hit upon speculations considering time as the supreme essence. The question, when this system may have been first evolved, will be treated later on. For the present, it may suffice to state that the Zervanite theology was officially recognized during the beginning of the Sāsānian epoch, but without leaving traces in the Avesta or in the bulk of the Pahlavī literature.

On the other hand philosophical speculations on time formed the essential part of a special system of Indian philosophy, the Kālavāda, a school which disappeared and was absorbed by the recognized systems. Again, in the Hellenistic world the question of time, of its relation to certain philosophical conceptions and scientific aspects was treated under a number of different points of view.

The wide diffusion of the speculations concerning time as the leading principle calls for a closer study of this special development of thought. It must be borne in mind that the representation of time as a philosophical or religious factor is only possible when certain astronomical features have been observed, comprising a system of measurement of time and showing that nothing visible can be taken as existing outside this conception. Where therefore time has been promoted to the rank of supreme essence, the scientific spirit and the philosophical or theological speculations must necessarily have already attained a certain level. All this contends to make the examination of the problem more attractive, but it adds considerably to the difficulty of handling it.

The scope of the following lines is to present the features of the question in a manner showing the similarities and the differences of the conception of time in Iran, in India, and in the Hellenistic world. If absolutely convincing results cannot be arrived at on the subject of the origin of the speculations on time—speculations which may have been taken up in different countries and at different epochs independently of each other—it may be of interest at least to be able to compare the doctrines in question. However, it must never be forgotten that between India, Iran and the Western world frequent intercourse took place and that important features like the Indian alphabet point to the conclusion of Western influences having worked on the Indian mind—through direct contact by the neighbourhood of Iran or through other channels like southern Arabia. Sir John Marshall's important discoveries in the Punjab show that very early relations

existed between north-western India and the countries situated on the Persian Gulf.

But one fact must not be overlooked: Indian thought has developed mainly on its own lines. Even if outside influences are to be taken into account, Indian philosophy has always gone her own way, not troubling about other nations. Mahāyāṇa-buddhism has first carried Indian ideas into wider circles. It may be that certain features of Buddhism like the non-recognition of the caste system [1] and its adversity to ascetic practices have been the main instrument in making Buddhism unpopular in India, so that the Hindoo movement was able to suppress Buddhism in India proper.

When the special position of the Indian development is taken into consideration, it will appear useful to examine the Indian theories on time as the first point of this paper and to follow up with Iran as the country which was in touch both with India and the regions of the West. After treating the Iranian conceptions of time as the highest being it will be good to turn to the Hellenistic world extending the studies to such Mesopotamian, Anatolian or other elements which may have been taken up by Hellenism.

After the situation concerning the philosophy of time in Iran, India and the Hellenistic world has been made clear, it will be possible to propose certain solutions explaining the different speculations. In doing this, it must, however, be understood that the author does not intend to engage himself in unproved theories, but that he only wishes to present some suggestions for further studies.

[1] This does not mean that Buddhism was in any way a reaction against the system of castes. On the whole early Buddhism was an aristocratic movement, in which the *kṣatriya* are prominent. It was against the privileges of the Brāhmaṇas and the authority of the Veda that the new doctrine was directed. For attaining the state of freedom from pain and the entanglement in the world it was indifferent whether the follower of the Buddha was a Brāhmaṇa, a Kṣatriya, or a Vaiśya. But the Indian Buddhists were aware of the caste distinction. Nobles and Brāhmaṇas form the surrounding of the Buddha and Buddhist tradition believes that a Buddha can only be born as a Brāhman or a Kṣatriya.

II

Indian Conceptions of Time

1. *Attitude of different religious and philosophical schools towards the problem*

The Ṛgveda employs the term *kāla* like the word *ṛtu* not in the general sense of time but in that of "certain moment", "right moment".[1] In the latter meaning *kāla* was often used in connection with the sacrifice ritual and although the etymology of the word has not yet been cleared up in a completely satisfactory manner [2] the sense "right moment for a purpose" seems to be the original one, as Oldenberg has been able to show.[3] On the other hand, it has been suggested that *kāla* may have meant at first something like "driver" and that this figure was a so-called "special god" in the sense accepted by Usener.[4] In a similar manner Güntert has tried to explain the character of Savitar.[5] There remains however a certain difficulty. It is in the Artharvaveda that *kāla* is mentioned for the first time as a god. He appears there already as an abstract conception of highly philosophical tendencies. How this abstraction developed is not known and only conjectures can be put forward concerning the original character of *kāla* as a deity. There is even no explanation to be given how *kāla* came to be the term for "time", in which meaning the word is generally employed in Sanskrit, where the conception of a deity *kāla* does not come into consideration. We can only state that the Atharvaveda treats kāla as a god, without being able to ascertain in what way this notion grew up.

The question whether the abstract idea of time was turned into a deity or whether a concrete god kāla, the

[1] Cf. the post-Vedic expression *ṛtukāla*, "season, menses".
[2] H. Güntert, *Der arische Weltkönig und Heiland*, 232 ff.
[3] *Lehre der Upaniṣaden*, 18, 1; *Weltanschauung der Brāhmaṇatexte*, 40.
[4] W. Wüst, *ZII*. v, 1927, 166 f.; cf. Usener, *Götternamen*, 75 f.
[5] Güntert, loc. cit., 155 ff.; cf. Oldenberg, *Rel. des Veda*, 2nd ed., 63 ff; *ZDMG*. li, 473 ff., lix, 253 ff; *Vedaforschung*, 79 ff.

A number of special points of the subject under review has been dealt with already by eminent scholars whose work in elucidating parts of the problem have greatly advanced our knowledge of it. Such valuable contributions are principally due to Wilhelm Bousset, Franz Cumont, Louis Mariès, Carl Clemen, Eduard Norden, Heinrich Junker, Hans Heinrich Schaeder, Richard Reitzenstein, Louise Troje, Robert Eisler, and Isidor Scheftelowitz.[1] The work accomplished by these and other scholars has given the impulse for undertaking the following study, which tries to consider the subject under a more general aspect, but which would not be possible without the preparatory investigations mentioned here. It will not in every case be feasible to accept the explanations or deductions proposed by other authors, but this does not mean a criticism of their work. The strongest impulse given by scholarly labour is not always contained in the fact that the result expounded must be maintained for ever and ever, but that it incites discussion and further investigation. If a problem is attacked from more sides than one, the probabilities of a sound solution will by necessity be larger than if only a restricted circle of persons deals with it. As the field which the present study has to embrace is large and as the traditions of many nations and countries have to be taken into account, the chances for errors are greater than if the author had limited himself to only one or two sectors.

[1] After the completion of this paper, which was read in August, 1928, at the 17th International Oriental Congress at Oxford, the following studies have touched the subject under consideration: K. Holl, *Gesammelte Aufsätze*, ii, 1928, 145 ff. A. Christensen, *Études sur le Zoroastrisme de la Perse Antique*, 1928, 45 ff. A. V. Williams Jackson, *Zoroastrian Studies*, 1928, 31 ff. J. D. C. Pavry, *The Zoroastrian Doctrine of a Future Life*, 2nd ed., 1929, 64, 26. I. Scheftelowitz, *Die Zeit als Schicksalsgottheit in der indischen und iranischen Religion*, 1929. H. Junker, *Wörter und Sachen*, xii, 1929, 132 ff. E. Benveniste, *The Persian Religion*, 1929, 76 ff. *JAS.* ccxv, 1929, 287 ff. H. S. Nyberg, *JAS.* ccxiv, 1929, 198 ff. G. Messina, *Der Ursprung der Magier und die zarathuštrische Religion*, 1930, 94 f. F. Cumont, *Les religions orientales dans le paganisme romain*, 4th ed., 1929, 277 f.

"driver", was at a certain period connected with the abstract conception of time, can hardly be answered, if one desires to remain on the solid ground of facts.

Atharvaveda, xix, 53 and 54, presents Kāla already as the highest principle, as the creator of Prajāpati and of the universe.[1] On the other hand, Atharvaveda, xiii, 2, 39 ff., says that Rohita, a solar deity, is Kāla and Prajāpati. In the Ṛgveda Rohita often designs a red horse, and the conception of the sun as a horse is well-known. Atharvaveda, xix, 53, 1, calls Kāla a horse with seven reins and a thousand eyes.[2]

It is practically impossible to fix even approximately the age of the Atharvaveda. In any case, this *saṃhitā* is of special interest, because it preserves numerous opinions which were not considered as orthodox. The philosophical speculations on time which the Atharvaveda exposes reckon with Brahman. It is to be assumed that these notions on Kāla as time cannot have been introduced before Brahman had been recognized by philosophical speculation as the one principle which contains everything. The two hymns about Kāla, who is said to enclose Brahman, and to be superior to him, must therefore belong to a period when the idea of Brahman had been developed, and they denote an opposition to the teaching of Brahman being the highest essence. In general the philosophical and cosmogonical parts of the Atharvaveda are believed to be of relatively recent origin,[3] although it cannot be proved why such portions should not contain very ancient conceptions. In any case, the Atharvaveda shows that

[1] On these hymns cf. Deussen, *Gesch. d. Philos.* I, i, 209 ff; Winternitz, *Gesch. d. ind. Lit.* i, 132; Güntert, *Der arische Weltkönig*, 231 ff; O. Strauss, *Indische Philosophie*, 34.

[2] It must not be forgotten that Rohita means "the red one" and Kāla "the blue-black". Etymologically this word has nothing to do with Kāla "time". A certain parallel may have been drawn between the two expressions, but the comparison of Kāla with a horse does not seem to point to ancient mythological connections, which have been seen here by some scholars.

[3] Winternitz, loc. cit., 130; Oldenberg, *Weltanschauung*, 40, thinks that the two hymns in question may belong to the period of the Brāhmaṇas.

Kāla had become the subject of philosophical meditations. It is to be understood that time was connected with Prajāpati in his character as *Saṃvatsara* "the year", and that astronomical notions were taken into account. The seven reins, the seven wheels of Kāla as mentioned in Atharvaveda, xix, 53, 1 f., have been explained as the seven planets or the seven Ādityā. Kāla's thousand eyes are said to be identical with the stars as governed by time. Güntert believes the notion of time to be synonymous with Aditi.[1] Space and time are often enough linked up together, but there is no clue to show that "boundlessness" *Aditi*, has really influenced the notion of Kāla as we find it in the Atharvaveda. The Iranian Zrvan- akarana- has evidently been the cause of connecting Aditi and Kāla. Without accepting the correctness of a theory which believes in relations between Aditi and Kāla, it will be useful to remember the controversies about Aditi and the Ādityā, which have been explained in the most divergent manner, this group of deities having been put in parallel with the Aməša-spənta- and having been connected with influences from Mesopotamia.

After the Atharvaveda, Kāla "time" is not unfrequently mentioned in philosophical and religious texts. But the conception is generally taken in a different character than in the Atharvaveda, where Kāla is the highest principle of a somewhat mystical tint. The Mahābhārata occasionally considers time as fate.[2] The doctrine of Karman has influenced such considerations.[3] Bali, Namuci and Vṛtra find according to the Mahābhārata [4] their consolation in the idea, that Kāla has shaped their destinies and that nothing can be done against time and fate. The Mokṣadharma points

[1] *Der ar. Weltkönig*, 231.

[2] xii, 28, 18 ff.; 153, 44; cf. 25, 5 ff.; 33, 14 ff.; xiii, 1, 50 f., etc.

[3] Time as a deity of destiny in India has been treated by I. Scheftelowitz at the Fifth German Orientalists' Meeting in 1928. He arrives at the conclusion that Kāla as destiny is a conception which developed only after astrology became known in India. Cf. his book *Die Zeit als Schicksalsgottheit* mentioned above.

[4] xii, 223, 224, 225, 226, 227, 228, 280.

to Kāla as the mediator between Prakṛti as the non-apperceiving cause and the non-apperceiving effects, the evolutions of matter. These considerations are greatly complicated by the speculations on the true nature of the relations between Puruṣa and Prakṛti and the explanation of the fact how non-spiritual matter came to create the cosmic and psychical world. Repeatedly time is compared to the consuming fire: it is said that Kāla cooks or burns the world. In such cases Kāla is identified with Agni like later on with Māyā or Prakṛti.

The senses of time and fate given to Kāla include the notion of death, primarily as being the fate from which no living being can escape. Kāla gradually becomes synonymous of death. The deity of time and the god of death form one heavenly being; Kāla is the same as Yama. Śiva is Mahākāla, the great time and at the same time the great death; Mahākālī is a form of Durgā. Though Kālī originally means "the blue-black", the similarity of sound with Kāla must not be neglected. Like Śiva, Viṣṇu has been assimilated to Kāla,[1] but time, the general destroyer and giver of life, seems on the whole to be more appropriated to the character of Śiva. The Viṣṇu-Purāṇa, i, 2, mentions time as one of the four shapes of the highest essence, the other three being *pradhāna*, *puruṣa* and *vyakta*. The Bhāgavata-Purāṇa makes Viṣṇu act through Kāla. Occasionally Viṣṇu is called Kāla or Kāla appears as an independent element besides Viṣṇu.[2]

The testimonies hitherto examined show Kāla in the sphere of mythology and religion.[3] They are probably only the remains of a once rather widely spread philosophical speculation, which considered absolute time as the fundamental principle and which was superseded and rendered

[1] Schrader, *Über d. Stand d. indischen Philosophie z. Zt. Mahāvīras u. Buddhas*, 30.

[2] *Bhāgavata-Purāṇa*. i, 6, 9; 8, 28; 9, 14; 13, 16 f., etc.

[3] Religion and Philosophy are interdependent in India. Cf. M. Winternitz' clever remarks, *Hochschulwissen*, 1927, 687, on the formation of the notion Theosophy by Oltramare and Speyer.

obsolete by other victorious systems. It is typical that just the Atharvaveda, which enjoys the least great reputation amongst the *saṃhitās* and which has preserved many beliefs not recognized by orthodoxy, and sectarian developments like Śivaism retain notions of Time as the uppermost god.

That the problem of time came to occupy the minds of Indian philosophers is easily to be understood. The idea that every existing thing has but a transitory nature and is subject to decay led by itself to speculation on the character of time, generally linked up with space, *diś*, meaning a part of the world, and *ākāśa*, "infinite space," a much discussed notion.

But time being connected with the everyday life of man, it was, too, subjected to a purely scientific treatment. The science of time, *kālajñāna*, comprising the knowledge of the division of time, *kālajñānagati*, forms a part of astrology.[1] Without understanding the system of time-division it was impossible to follow the movements of the stars. Therefore the study of time was of the highest importance. The notion of Kāla belonged to the field of research of one of the most difficult branches of Indian science, astronomy and astrology; astrology again remains in close connection with other parts of scientific study as well as with religion and magic rites. The mathematical and astronomical problems concerning time have had their bearing on the philosophical side of the aspect, the character of Kāla as a deity of fate and death, such as it was developed in certain circles, making the whole term most appropriate for astrological systems.

In the field of philosophy, however, speculation hit on the great difficulty of defining the character of time, a puzzle which was not answered till Kant's explication of time and space as forms of conception of the human mind was propounded. Indian thought looked on time as a substance or as an attribute and occasionally tried to tackle the problem whether time is eternal or not. On the whole, the question

[1] J. v. Negelein, *ZDMG*. N.S. 7. 1928, 3.

of the nature of time does not seem to have taken up much room in the systems known to us. It is more or less accidentally that the problem is treated. Buddhists were on the other hand ready to negate the existence of time at all, and this point of view has given rise to controversies which allow us to get acquainted with the opinions of the Brāhmanic opponents.[1]

The reflections of the Maitrāyaṇa-Upaniṣad[2] on the transitory nature of everything existing lead already to the consideration that time is a substance identical with Brahman, while the Bṛhadāraṇyaka-Upaniṣad[3] makes time only proceed from Brahman through *ākāśa*, "space," a much discussed term which is often equalled to the ether. The Śvetāśvatara-Upaniṣad, i, 2, mentions Kāla with nature, Svabhāva, necessity, Niyati, chance, Yadṛcchā, the fundamental substances, Bhūtāni, Yoni and Puruṣa among the possible primary principles which may have caused the world to come into existence. On the other hand Gauḍapāda tries to demonstrate that Kāla, Īśvara or Svabhāva cannot be the original causes of the world's existence.[4] One of the questions which puzzle the Indian philosophers is how time can be eternal and still subjected to being divided into determinated portions. For those schools who consider time as a substance the problem presents itself in the shape of having to accept the eternity of a substance. While the Sāṃkhya explains time and space as eternal and coexistant attributes of primar matter, Pradhāṇa, other systems like the Vaiśeṣika accept two different times, an eternal indivisible time and the different parts of time such as the movement of the stars calls forth.

These short hints may suffice to show how complicated

[1] Cf. the excellent survey given by Th. Stcherbatsky, *La théorie de la connaissance et la logique chez les Bouddhistes tardifs*, 12 ff.

[2] i, 4; vi, 14–16.

[3] iii, 8, 6–10.

[4] *Ad Sāṃkhyakārikā*, 61; cf. H. Jacobi, *Gottesidee*, 39.

the whole problem appeared to the philosophical mind.[1] It is of interest to note that the Vedānta, which gives to the conception of *ākāśa* its place in speculation, passes more or less in silence over that of time. Śaṇkara,[2] who attacks the Buddhists because they negate the outward world, accepts only an empirical reality. Therefore time does not exist in his eyes, there being no succession of psychic phenomena and no changement in the exterior world, a point of view strongly resembling that adopted by Buddhism.

The Vaiśeṣika system ranges time amongst the eternal substances. But it must not be forgotten that for the philosophy of the Vaiśeṣika *dravya* only means something possessing quality or movement and being the immediate cause of a phenomenon.[3] In any case, Vaiśeṣika and Nyāya do not recognize time and space as qualities.[4] Kaṇāda calls time like *diś*, "space," as distinguished from *ākāśa*, "ether," a unique, boundless and eternal substance which cannot be apperceived.[5] This substance is measured by the sun. On the other hand the Nyāya system looks on the substances as elements of matter, *bhūta*.[6] Time and space are eternal substances, coexisting with everything and all-penetrating like *ākāśa*, "ether." [7]

The speculations of the Naiyāyikas on the nature of time as a substance of a character not subjected to human apper-

[1] It may be allowed to draw the attention to Henri Bergson's idea of the "Evolution créatrice", metaphysical time being distinguished from the mere succession of phenomena, and to the literary treatment of the problem by Marcel Proust, *A la recherche du temps perdu*.

[2] Deussen, *System des Vedānta*, 260 ff.

[3] Max Müller, *ZDMG*. vi, 24. *The Six Systems*, 2nd ed., 441 f.

[4] It may be mentioned that Indian logics did not arrive at a doctrine of conclusion in the Aristotelian sense. H. Jacobi, *Nach. d. Gött. Ges. d. W.*, 1901, 461 f.

[5] Deussen, *Gesch. der Phil.*, I, iii, 351 ; M. Müller, *The Six Systems*, 2nd ed., 444 f.

[6] *Nyāya Darśana*, I, i, 13.

[7] *Nyāya Darśana*, II, i, 22 ; cf. H. v. Glasenapp, *Hinduismus*, 279 ; O. Strauss, *Indische Philosophie*, 152, contends that the *Nyāya* considers time and space as eternal uniform realities.

ception lead to the declaration that time and space are identical.[1] Modern Nyāya philosophers pronounce time and space to be Īśvara. The modern Naiyāyikas being mostly Śivaites,[2] this assimilation could point to their having accepted the popular belief that Śiva-Īśvara is Mahākāla. It is very doubtful whether in this instance influences of the Kālavāda are to be taken into account, but in any case it is perhaps worth while to note that the Śivaites were represented in north-western India and that they may there have come into closer contact with Iranian ideas.

It will be useful to retain the fact that the Nyāya-sūtras may belong to the period between A.D. 200 and 450, while the Vaiśeṣika-sūtras are believed to have been written between A.D. 250 and 300[3]; the origin of the Vaiśeṣika philosophy as such can reach up to the second century B.C.[4]

According to Madhva (probably A.D. 1199–1278) time is with Prakṛti an eternal principle; Kāla proceeds from Prakṛti, and it is differenced by itself, not by any accidental happenings. In any case time depends on Viṣṇu.[5] This is the same attitude as that which the Viṣṇu-Purāṇa and the Bhāgavata-Purāṇa adopt.

A certain interest attaches to the Jaina interpretation of time.[6] Time having contrary to other substances no expansion and occupying no parts of space, Pradeśa, some Jaina philosophers separate it from the substances, Dravya, while others again declare Kāla to be a Dravya, but no Astikāya, i.e. time does not belong to one of the classes of being, such as Jīva and the four other non-spiritual substances.

[1] Vācaspatimisra, cf. *Tātparyaśuddhi*, 281, refutes this opinion.

[2] Winternitz, *Gesch. d. ind. Lit.*, iii, 477. According to a legend, Śiva is said to have revealed the Vaiśeśikasystem to Kaṇāda in the shape of an owl. Cf. Peterson, *Three Reports*, 26 ff.

[3] Jacobi, *Nachr. der Gött. Ges. d. Wiss.*, 1901, 460 ff.; 476, 482; L. Suali, *Introduzione allo studio della filosofia Indiana*, 64 ff.; B. Faddegon, *The Vaiçeṣikasystem*, 10 ff.; H. v. Glasenapp, *Hinduismus*, 277 ff.

[4] Winternitz, loc. cit., 472.

[5] H. v. Glasenapp, *Madhvas Philosophie des Vishnu-Glaubens*, 53.

[6] Cf. H. v. Glasenapp, *Jainismus*, 154 f.; O. Strauss, *Ind. Phil.*, 113.

In all the systems and religious communities mentioned before, the speculations on time only play a modest and more accidental part. But there existed one school of thought, which like the two hymns of the Atharveda mentioned before, considered time as the central notion and as the fundamental principle. This system, the Kālavāda, has disappeared. It is only through occasional polemics of Buddhist writings and by mentions in Jaina literature that the existence of this school is known. Why it disappeared is not to be said with certainty. The explanation proposed by certain scholars that the Kālavāda was absorbed by astrology,[1] does not sound very probable. On the contrary, astronomical and astrological reflections may have led to construing a philosophical school which pronounced time to be the first principle.

As has been shown, the Śvetāśvatara-Upaniṣad, i, 2, mentions Kāla as the first of the principles which have been considered as the original cause. After Kāla Svabhāva, nature, Niyati, necessity, Yadṛcchā, chance, Bhūtāni, the fundamental substances or elements, Yoni and Puruṣa, primar matter and spirit, are enumerated. The Śvetāśvatara-Upaniṣad introduces a new principle, Īśvara; thus theistic philosophy, which proceeds from the speculations on Ātman, has been of the greatest importance for the development of Śivaism and Viṣṇuism. In this Upaniṣad we further meet for the first time the theory of the three Guṇas,[2] the whole treatise being a kind of compromise between Vedānta and Sāṃkhya teachings.[3] The age of this Upaniṣad is difficult to fix. It has been suggested that the treatise is the product not of one author, but of a school and that the original was limited to i, 1–12, containing the doctrine of the threefold brahman, the complete theism of the other part of the

[1] Stcherbatsky, *Théorie de la connaissance*, 15.

[2] M. Müller, *The Six Systems*, 2nd ed., 216.

[3] M. Müller, loc. cit., 262; the *Śvetāśvatara-Upaniṣad* mentions *Vedānta*, vi, 22, *Sāṃkhya* and *Yoga* vi, 13.

Upaniṣad connected with Rudra being developed at a later period out of the theory of the threefold brahman.[1]

In any case the Śvetāśvatara-Upaniṣad points to the existence of a philosophical school which considered time as the first cause.

The Maitrāyaṇa-Upaniṣad [2] compares time with Brahman. Time and Not-time are called the two bodies of Brahman. Perhaps the authors of those passages of the said Upaniṣad tried to arrive at a compromise between the Kālavāda and the orthodox systems.

The Jaina literature further offers a few mentions of the systematic Kālavāda. There is a definition of time given according to the views of the Kālavāda by Śilaṇka in the Ācāraṭikā, calling time amongst other things the form of action of everything.[3] In his commentary to the Nandī written in the twelfth century A.D. Malayagiri [4] quotes certain principles which may come from a Sūtra of the Kālavāda. Here time is called the cause of everything. Amongst the 360 *darśana*, which the canonic literature of the Jainas enumerates, the Kālavāda is mentioned as a sub-division of the Kriyāvāda. This conception is common to Buddhists and to Jainas and comprises such philosophic systems as recognize the three principles of freedom of will, responsibility and reincarnation. Malayagiri [5] says that Kāla is like Īśvara, Ātman, Niyati, Svabhāva and Yadṛcchā, one of the metaphysical principles of the six schools of agnosticism (*Ajñānavāda*).

These same systems are mentioned in the Buddhacarita [6] with the exception of the Kālavāda, about which the Buddha

[1] F. O. Schrader, *Der Stand der Philosophie*, 42 ff. For the importance of the *Śvetāśvatara-Upaniṣad* for the development of Śivaism cf. Bhandarkar, *Vaiṣṇaism*, 106 ff.

[2] vi, 14 f.

[3] F. O. Schrader, *Der Stand der Philosophie*, 28.

[4] Ed. Calcutta, *saṃvat* 1936.

[5] F. O. Schrader, *Der Stand der Philosophie*, 12 f.

[6] ix, 47 f., ed. Cowell.

is made to pronounce himself in another passage of this work.[1] The Aṅguttaranikāya enumerates the *kālavādī*, *bhūtavādī*, *atthavādī*, *dhammavādī*, *vinayavādī*.[2] Whether Buddha himself was acquainted with the Kālavāda, appears as doubtful as the idea that Mahâvīra knew about this and other similar systems.[3] But it may be assumed that such schools existed really at a later period and that the literature of the Jainas and Buddhists does not merely reproduce an imaginary schedule, but gives an account of actually taught systems, a conclusion which, as has been demonstrated, can be drawn as well from Brahmanic sources.

The testimony of Bhaṭṭotpala, a commentator of Varāhamihiras Bṛhatsaṃhitā, may close the list of quotations about Kāla. This author says[4] that some consider time as an eternal, unifold and ever-present substance, the measure of all actions; others describe it as the movement of the sun, the planets, and the fixed stars, others again call time the difference of the periods. Here Bhaṭṭotpala does not seem to treat a philosophical system, but to reproduce opinions current in the circles of astronomers.

III

Iranian Conceptions of Time

1. *Iranian Sources*

Time, *zrvan-*, occupies but a very secondary position in the avestic pantheon. The name itself has been read as *zurvan-*, or by some scholars as *zruvan-*. Zrvan- belongs to the same root as *zaurvan*, or without epenthesis *zarvan-*, "old age," who appears as a demon in Vidēvdāt, xix, 43, as the *daēva-* of decrepitude making the parents lose their intelligence, if we follow the interpretation of the

[1] xviii, 55 f.

[2] iii, 69, 9, cf. *Puggala-Paññatti*, iv, 57 f. ed. Morris.

[3] Schrader, loc. cit., 13.

[4] *ad Bṛhatsaṃhitā*, i, 7, ed. Dvivedi.

passage given by Bartholomae.[1] *Zrvan-* appears in two forms, as *akarana-*, "boundless time," and as *darəghōχᵛadhāta-*,[2] as the all-governing or self-created time of the long period. The second shape of time corresponds to the well-known period of 12,000 years in which the evolution of the corporal (*astvant-*) world is comprised. This epoch is contained in eternity, boundless time. The two conceptions are distinct from one another, but at the same time there exists a close connection between them inasmuch as Zrvan- darəghōχᵛadhāta- is but a section of Zrvan- akarana-.[3] This easily explains the fact why Zrvan- darəghōχᵛadhāta- always appears together with the other deity, Zrvan- akarana- and is never mentioned isolatedly as has been observed by H. Junker.[4] The two-fold yazata- Zrvan- is invoked Nyāyišn, i, 8 after Tištrya-, Vanant- and Thwāša- and before Vāta- and other deities. Vidēvdāt, xix, 13; 16, has Vayu- (vāyu-) instead of Vāta-. Thwāša- is the space full of air, or rather ether, the sphere lying beyond that of the stars, because air is really an element not familiar to the Iranians. Vāta- and Vayu- are geniuses of air and of the winds. Yašt xv is dedicated to Vayu- together with Rāman- χᵛāstra-, probably because a favourable wind brings "peace with good pastures", while hot or cold storms ruin them, whilst Vāta- is named οαδο on Indo-scythian coins. The winds are known to Herodotus, i, 131, as belonging to

[1] *Altiran. Wörterb.*, 757. For another interpretation see Jackson, *Grdr. d. iran. Phil.*, ii, 659 f.; Justi, *Iran. Namenbuch*, s.v.; Darmesteter *Zend-avesta*, ii, 275.

[2] Joh. Hertel takes *χᵛadhāta-* as "self-created", an expression opposed to *stidhāta-* "given through the existing," i.e. Ahura- Mazda-. *Die Sonne*, etc., 146, 60.

[3] v. Selle, *Gött. Gel. Anzeigen*, 1927, 438, believes that *akarana-* and *darəghōχᵛadhāta-* (*dərang χᵛvadato*) are but two epithets belonging to one god Zrvan-. Bartholomae, *Altir. Wörterb.*, 696, explains *darəghōχᵛadhāta-* as "der lange Zeit immer der eigenen Bestimmung untersteht", i.e. eternal. The *Rivāyat*, cod. xii, suppl. Anquetil, 14 ff., calls time the creator, but Ōhrmazd, himself an offspring of boundless time, creates Zamān direng ḫudāī, both aspects of time being considered as distinct. By Zrvān i dērang χᵛadhāi the cosmic aion is understood.

[4] *Warburg- Vorträge*, i, 1921–22 126 ff.

the number of Persian gods. Space, Akaša-, is a notion only to be found in Pahlavī literature, to the Avesta it is unknown. Vayu-, "air," "wind," is according to the Bundahišn the emptiness between the realms of Ōhrmazd and Ahriman, where in the reign of Zrvan-darəghōχ^{v}adhāta- the great meeting between the two spirits will take place. Yasna lxxii, 10 has Rāman-, Vayu-, Thwāša- and the two shapes of Zrvan- mentioned before. A synonym of Thwāša- or at least a strongly similar conception is Vayah-, "airy space," Nyāyišn, i, 1, where this deity is termed darəghōχ^{v}adhāta- like Zrvan-.[1] Time appears together with space, but only in later periods, not in the Avesta, we find Zrvan- in connection with fate, a point which will still call for attention. The notion of fate itself, Baxt, is not mentioned before the Pahlavī period. To Zrvan- akarana- "boundless time" may be compared *anaghra-raočah-*, "the lights without beginning"[2]; these are opposed as transcendent light as *χ^{v}adhāta-*, as sovereign or as self-created, to the light created only for the material world, which is called *stidhāta-* in Vidēvdāt II, 131, Mazdaism distinguishing between the purely spiritual sphere and the material existence.

The result for our investigation is but meagre, as far as the purely Avestic sources are concerned. Nowhere Zrvan- is an important *yazata-*, and there is no hint of his being considered as the highest principle. Only a comparatively small part of the Avesta has been preserved and it might have been possible that an epoch which rejected the Zervanite

[1] Misvan- gātu-, the place where the souls remain who are neither good nor bad, is considered as lying between earth and the sky. It is the Hamēstakān of Pahlavī books. This eschatological notion might be different from space and airy space as physical factors. J. Hertel, *Die Sonne*, pp. 64 f., believes *misvan- gātu-* to be the same as the domain of the wind.; cf. Lommel, *Die Yäšts*, 145 ff.

[2] The term appears in the Avesta always in the plural. J. Hertel thinks that *anaghra- raočāh-* meant originally probably the stars (*Die Sonne*, 147, text of note 1 to Yašt, x, 50) and that it is later one of the designations of the heaven of light (loc. cit., 10) and synonymous with *aša-* and other expressions for the fire filling this heaven of light (loc. cit., 78).

conception eliminated all allusions to this teaching. Such conjectures cannot, however, be proved. It is therefore the safest to assume that the Avestic texts do not consider Zrvan- as the supreme god and that time plays but a reduced and rather obscure part in these writings.

Outside the Avesta, Iranian allusions to Zervanism are too not frequent. At a later period the dualistic view was alone considered as orthodox and all other opinions were treated as heretic. The clergy apparently cleansed the texts of all allusions to Zervanism. Some passages, however, remain to show that the sacred writings did once speak of boundless time as the highest being. The Pandnāmak i Zarathušt [1] calls Ōhrmazd eternal, immortal, boundless and perfect, without mentioning his relation to Zrvan-. H. Junker [2] presumes that both are taken here as identical. In reality, the said Pahlavī text simply gives the traditional Pārsee point of view, which considers Ōhrmazd and Ahriman not as equals, the victory in the end belonging to Ōhrmazd and the forces of light being superior to those of darkness.[3] The Gāthic doctrine is different, Ahura- Mazda- being there the supreme essence in the spiritual realm, the antagonism of Spənta- and Anra- Manyu- remaining confined to the tangible world. The Pandnāmak i Zarathušt therefore does not seem to refer even indirectly to Zervanism. On the other hand, the Mēnūk i χrat positively calls the self-existing Zrvān the Pādišāh, with whose benediction alone Ōhrmazd can create. Time and fate

[1] Cf. Freiman, *WZKM.*, 1906, xx.

[2] *Warburg-Vorträge*, i, 1921–22, 132 f. It may be mentioned here that *Dēnkart*, § 279, ed. Sanjana, letting all creatures return to the creator Ōhrmazd, corresponds to the Stoic view that God takes back to Himself everything, when a period of the world is terminated. In the same way, the Pahlavī expression *vardišn* for the cosmic movement can be explained by referring it to Stoic conceptions, which probably reached the Zoroastrian priests through some channel or other.

[3] This is why the Mazdaist theologians do not accept the Jewish opinion of the evil being a power rivalising with the good. Cf. *Dēnkart*, § 211, ed. Sanjana.

rule everything.[1] H. Junker has seen justly that the Zervanite tendencies of this text have been weakened, Zrvan- akarana-, Baxt, "fate," and "God's providence", Bāgh Baxt, becoming fighters on the side of Ōhrmazd in his war against Ahriman. The Mēnūk i χrat is imbued with the spirit of astrology and this attitude can be taken as typical for everything connected with Zervanism. Besides the Mēnūk i χrat the Great Bundahišn, vi, 68 ff.,[2] and the Zādsparam, iv, 5,[3] contain allusions to the Zervanistic theology.

Two later texts are of interest because they expose the Zervanite system at an epoch when the orthodox dualism had already triumphed and when Pārsism was a religion only tolerated by Islām. The controversial theological treatise *'Ulemā i Islām* [4] written in modern Persian calls time the creator. Everything done by Ōhrmazd was done by the help of time, who is the sovereign [5] of creation. The same point of view is adopted by a Rivāyat.[6] Except time everything is created. Both texts are full of astrological allusions. The conceptions in the two treatises are very similar. Ōhrmazd is the result of the union of fire and water, the first elements created by Zrvan-.

In the second part of the ninth century A.D. the Škand gumānīk vičār attacks the opinion of the Daharī.[7] These

[1] The Mēnūk i χrat representing Zervanite views, it is comprehensible, that this text resembles Manichæan writings, Mānī having adapted his new religion to the Zervanite theology. For the transliteration Mēnōkē χrat which is not followed here, cf. Nyberg, *JAS*. ccxiv, 1929, 242 ff.

[2] H. H. Schaeder, *Studien zum antiken Synkretismus*, 222 ff.

[3] H. H. Schaeder, loc. cit., 223 n.

[4] ed. Olshausen-Mohl, *Fragmens relatifs à la religion de Zoroastre*, Paris, 1829, 1 ff., transl. by Vullers, *Fragmente über die Religion des Zoroaster*, Bonn, 1831, 43 ff.; Chr. Bartholomae, *Zendhandschriften*, 152 f.; E. W. West, *Grundr. d. ir. Phil.*, ii, 123.

[5] *ḫudāvand*.

[6] Code *Anquetil*, xii, suppl., 14 ff. Spiegel, *Die traditionelle Literatur der Parsen*, 161 ff.

[7] vi, 6 ff. West, *SBE*., xxiv, 146; H. Junker, *Warburg-Vorträge*, i, 1921–22, 171; the Daharī are compared to the Islāmic sect of the Dahrīya by M. Horten, *Die philos. Systeme d. spekulat. Theologen im Islam*, 81 ff.; 274 ff.; 320 ff.; *Die Philosophie d. Islam*, 110 f.

consider the world as a creation of Zrvān akanārak.[1] According to the Škand gumānīk vičār space, *gyak*, and time, *zamān*, are considered as *akanārak*, as boundless.[2]

The scarce mentions of Zervanism in the Iranian literature would by themselves not be sufficient to prove that the theology of Zrvan- was once officially recognized by Mazdaism. Yet a number of names composed with Zrvan- tend to show that this deity was highly considered in the Sāsānian epoch. The son of Mihr-narsēh, minister to the king Yezdegerd II, bore the name Zorvāndādh and the father called a village given to him Zorvāndādhān.[3] The daughter of Šāhpūhr II and wife of *X*osrau III of Armenia was called Zorvāndu*χ*t.

2. *Christian References*

Besides the important, though only indirect, testimony of Mānī in the fragments of his Šāpūrakān luckily preserved in the sands of Turfān[4] some Christian authors speak of Zervanism.

Theodoros of Mopsuhestia, author of a *βιβλιοδάριον περὶ τῆς ἐν Περσίδι μαγικῆς*, says that *Ζουρουάμ*, whom Zarathuštra also calls *τύχη*, is the origin of everything and that through sacrificing he gave birth to Hormisdas and to Satan.[5] Before Theodoros, St. Basil the Great, Bishop of Kaisareia in Kappadokia calls *Ζαρνοῦας* the beginning of the race of the Magusæans.[6] Diodoros of Tarsos, who came into contact with St. Basil, is said to have written books *κατὰ*

[1] *phl. akanārak* "without border" corresponds to Avestic *akarana-*.

[2] xvi, 53 f.; Salemann, *Ein Bruchstück manich. Schrifttums*, 20.

[3] Nöldeke, *Ṭabari*, 109 ff. For the name Zorvāndāt cf. Bartholomae, *Zum sasanid. Recht*, v, 11; Justi, *Iran. Namenbuch* s.v. *Zarwāndāδ* and *Zrovandūχt*.

[4] H. H. Schaeder, *Warburg-Vorträge*, iv, 1924–25, 144.

[5] ap. Photium, *Bibl.*, 81. According to Lagarde, *Gesammelte Abhandl.*, 149, this book was addressed to an Armenian bishop.

[6] *ep.* 258 *ad Epiphan.*, 4.

ἀστρονομων καὶ ἀστρολόγων καὶ εἱμαρμένης and *κατὰ Μανιχαίων*, but nothing of his works is left.[1] He like Theodoros of Mopsuhestia and perhaps the Mesopotamian bishop Mārī "the Persian", author of a lost book against the Magians of Nisibis, was probably inspired by Berossos as the ultimate source of knowledge on the Persian religion, though these men must have been able to collect, too, direct information about the Magian belief.

It has been assumed that Diodoros and Theodoros of Mopsuhestia were sources for the Armenian author Eznik of Koḷb, who wrote in the fifth century A.D.[2] The works of Theodoros of Mopsuhestia became important for the Nestorian church; even before the Nestorian schism took place his writings must have been widely read. Therefore Esnik, who studied in Syria and in Constantinople, made extracts from Theodoros with the aim of instructing the Armenian clergy. Esnik's description of Zervanism is of the highest importance. His book is not an original work as he wrote after foreign sources, and it is quite probable that he used two different authors,[3] but this is irrelevant. The fact that men like Diodoros and Theodoros of Mopsuhestia treated Zervanism is significant enough, and Esnik, bishop of Bagṛevand,[4] had no literary ambitions. His aim was merely practical. He wanted to enlighten the Armenians and give them the means of fighting against the Mazdaists, the Heathens,

[1] Photius, *Bibl.*, 223; 85.

[2] ed. Smyrna, 1762; ed. Venice, 1825–6, 1863 ff. Paris, 1860, Constantinople, 1864 ff. English translation by A. Aganon in J. Wilson, *The Persian Religion*, Bombay, 1843. German translation by J. M. Schmid, *Des Wardapet Eznik von Kolb Wider die Sekten*, Vienna, 1900. S. Weber *Bibl. der Kirchenväter, Der armen. Kirchenväter ausgewählte Schriften*, i, 25 ff. Esnik's text exists only in one manuscript, *Ečmiadzin* no. 111, written in A.D. 1280; cf. Ajarean and K. Ter- Mkrtčean, *Handēs amsoreay*, 1904, 33 ff.

[3] L. Mariès, *Le de Deo d'Eznik de Koḷb*, 25, 86 f. The ultimate source for these authors may have been in a certain degree Berossos.

[4] Cf. S. Weber, loc. cit., 14 ff.

against Markion, Mānī and other religions considered as false.[1]

Now at the time of Esnik, who according to the Armenian sources took part in the synod of Artašat of A.D. 449, the Sāsānian king Yezdegerd II tried to convert the frontier province of Armenia to Mazdaism. An edict which the Persian minister, Mihr-narsēh, is said to have addressed to the Armenians, is reproduced by Elišē,[2] while Lazar of P'arpi [3] speaks of a letter sent by the king of kings to the Armenian nobility and this royal document was accompanied by an exposition of the Mazdaist faith elaborated by the Mōbēdhs.[4] This treatise, composed by the Persian priests, may have been retained by Elišē, while the royal letter has been left out. This statement is of interest because it has been pretended that Elišē only gave an excerpt from Esnik.[5] Although the so-called edict of Mihr-narsēh and the description of Zervanism given by Esnik resemble each other closely, and although Elišē may have read Esnik, it must be borne in mind that the synod of Artašat, where Esnik was present, refuted the said royal order. Esnik composed his book between 445 and 448, i.e. just before the synod of Artašat.[6] We have seen that Mihr-narsēh must have been an adherent of Zervanism, as he called his son Zorvāndādh. That Esnik

[1] ii, 9. Esnik says that the Persian religion is not exposed in books, This is right if he should mean a systematic explanation of the system. because the Avestic literature can certainly not be considered as such. Theological treatises giving the Zervanite point of view may have remained unknown to Esnik, if such a literature existed at all in his time.

Euhemeristic traditions have influenced Esnik ii, 3, when he says that Zrvān was a human being and a mighty titan. Here he obviously followed simply his sources, and it may be remembered that Berossos gives similar rational explanations of ancient myths.

[2] c. 2.

[3] 19 ff.

[4] Lazar of P'arpi, 26.

[5] F. Cumont, *Textes et monuments*, i, 17 ff.; A. Meillet, *JAS.* N.S. xix, 1902, 548 f.; H. H. Schaeder, *Studien z. antik. Synkret.*, 239; A. Carrière, *Handēs amsoreay*, 1900, 183 ff.; L. Mariès, *Le de Deo*, 39 f.

[6] Harnack, *Marcion*, 2nd ed., 372[9]; Junker, loc. cit., 142; Mariès, loc. cit., 5.

used Theodoros of Mopsuhestia and Diodoros of Tarsos does not exclude the fact of his having known the edict addressed to the Armenians. The just named authors must in their time have had before them some materials giving details on the Zervanite religion. These may have been similar to the explanations joined by the Magian clergy to king Yezdegerd's address. The step undertaken by Mihr-narsēh had the effect of adducing a number of Armenian nobles to embrace Mazdaism; this again provoked the rising of Vardan the Mamikonian, who saw the Sāsānian Great king occupied by a war with the Hephtalites. In 451 Vardan was, however, subdued by the Persians. All this shows that real facts, not only literary loans, account for Elišē's writing.

The mention of Zrvan by Ps. Moses of Chorene, i, 6, is only a translation of Kronos.[1] It is, however, interesting to state that in Armenia Zrvan was considered the fit translation of Kronos.

The Armenian sources describe the Zervanite system in a very similar way as the Syrian literature does. Syrian and Armenian Christians had to fight the same theological adversary. The acts of the Christian martyr Pūsai (+ 340)[2] give only the usual Mazdaistic view, when they say that the Magians pretend Hormizd to be the brother of Satan, but this fact may just as well contain an allusion to Zrvan- as the supreme father, just like it is to be found in a Manichæan fragment polemizing against the Zoroastrian faith.[3]

The acts of Ādhurhormizd and Anāhēdh[4] and Theodor bar Kōnai[5] show the points on which the Christians tried to

[1] Geffcken, *Nachr. d. Gött. Ges. d. Wiss.*, 1900, 37 f.

[2] O. Braun, *Ausgewählte Akten persischen Märtyrer*, 1915, 67.

[3] Müller, *Handschriftenreste*, ii, 95. The Manichæans regard it as a blasphemy to pretend that the Father of Greatness, i.e. Zrvān, created Good and Evil.

[4] *Acta Martyrorum et Sanctorum* ed. Bedjan, ii, 576 ff., 592. Th. Nöldeke, *Festgr. an R. v. Roth*, 34 ff. Schaeder, *Studien z. antiben Synkretismus*, 233; 353; *Warburg-Vortr.* iv, 1924–25, 141, believes these acts to reproduce an excerpt of a lost treatise by Theodoros of Mopsuhestia.

[5] Pognon, *Inscriptions mandaïtes des coupes de Khouâbir*, 111.

attack Zervanism. Apparently the Zervanite conceptions were not throughout clear and they were intermingled with mythological, symbolical and astrological elements. It is not necessary to search for a primar source for all these authorities,[1] the necessity of combating the Zervanite theology in writings and in religious discussions being alone sufficient for explaining the similarity of the different Armenian and Syrian records.

The Muslim author aš-Šahrastānī reports of three Mazdaist opinions.[2] He calls them Zarāduštīya, Zarvānīya and Kayūmarthīya. Aš-Šahrastānī's sources cannot be traced. He came from Ḫorāsān from the border of Ḫvārizm and was an Aš'arite, a student of *fiqh*, *kalām* and *hadīth*, who considered religious questions from the point of view of Islāmic scholasticism. It is not impossible that he had personal contact with Zoroastrian circles, but he probably followed principally literary traditions. His declarations must not be taken as absolutely certain, but when using a certain dose of critic spirit, they yield interesting items. That the Zoroastrians were divided into parties can be inferred from Plutarchos.[3] The later Mazdaist literature speaks repeatedly of heretics, whose prototype is the Grəhma- of the Gāthās. Esnik and Elišē know of different currents of opinion among the Mazdaists.

3. *The Testimony of Eudemos of Rhodos*

The earliest mention of the Zervanite system could be found in a passage ascribed to Eudemos of Rhodos.[4] Eudemos belongs to the Peripatetic school and he was in Athens with

[1] The reports of Theodor bar Kōnai, Esnik and Elišē have been compared by A. Carrière, *La naissance d'Ormizd et d'Ahriman*, Paris, 1900, cf. *Handēs amsoreay*, 1900, 183 ff. s. above p. $74_{,5}$.

[2] 179 ff., ed. Cureton.

[3] *De Is.*, 46 ff., and the contention that Mithra- is the *μεσίτης* between light and darkness, an opinion unknown to the Avesta.

[4] ap. Damaskios, *'Απορίαι καὶ Λύσεις* 125 bis, 322, ed. Ruelle.

Aristoteles. He wrote on astronomy, astrology [1] and theology, and his book *τῶν περὶ τὸ θεῖον ἱστορία* [2] appears to have treated the cosmogonies of Orpheus, Homer, Hesiod, Pherekydes, etc., as well as those of the Zoroastrians and other oriental religions, according to the impulse given by Aristoteles in the first book *περὶ φιλοσοφίας*.[3] Now Eudemos appears to have studied the question, what original causes were believed to be the starting point of creation. In an important fragment on the Babylonian cosmogony Eudemos seems to speak of the fact that the Babylonians apparently passed in silence over the question of the primar principle. At first sight it would therefore not be improbable that Eudemos mentioned the highest principle of the Mazdaist faith. But there is a number of doubtful points which already made J. Darmesteter believe that the Eudemos quoted by Damaskios was not the same as the well-known follower of Aristoteles.[4]

The testimony on the Babylonian theogony given by Eudemos is of importance because it corresponds to the Babylonian poem *Enuma eliš* and because it shows that Eudemos used trustworthy sources.[5] The explanations about the primar cause in the Persian religion ascribed to Eudemos seem, however, suspicious. Damaskios, who has conserved the quotations from Eudemos, occupied himself with the unity of the original being and wrote *᾿Απορίαι καὶ λύσεις περὶ τῶν πρώτων ἀρχῶν* as well as *Συγγράμματα περὶ ἀριθμοῦ καὶ τόπου καὶ χρόνου*.[6] This fact and the whole tendency of the philosophy of Damaskios make it probable that he interpreted into the text of Eudemos such notions as were familiar

[1] Cf. Simplikios, *Comm. in Aristot. de caelo*, 488, 19, ed. Heiberg. Diogenes Laërtios, i, 23; Clemens Alex., *Stromata*, i, 14.

[2] This work, falsely ascribed to Theophrastos by Diogenes Laërtios, v, 48, belongs to Eudemos, Usener, *Anal. Theophr.*, 17.

[3] W. Jaeger, *Aristoteles*, 238,$_{2}$.

[4] *Le Zend-Avesta*, i, 221,$_{10}$; iii, lxix,$_{3}$.

[5] Diogenes Laërtios, *prooem.*, 8 f., names Theopompos and Eudemos as reporting the Magian doctrine of immortality and resurrection. Cf. for Theopompos Aineias of Gaza, *Theophr.*, 72, ed. Boissonade.

[6] Simplikios, *Phys.*, 146a; 151a; 183a–185a; 189b.

to him. Now Damaskios belonged to those Neo-Platonists who had to leave Athens and who took refuge in Persia. *X*osrau Anōšarvān allowed them to settle in Gundēšāpūr. It may be assumed that Damaskios got into touch with the then still reigning Zervanite theology and simply rendered his own impressions when he cited Eudemos. If the identification of the highest principle with time by Eudemos has to be abandoned, Eudemos' view as to the true nature of Zoroastrian dualism being confined to the differentiated nature is correct and this part of the quotation can therefore be in order.

But even when accepting the statement of Damaskios[1] as really belonging to Eudemos, the Zervanite system would only be shown to exist in the period of the late Achæmenian empire.[2] There are no other mentions of the Zervanite theology in the same period, all other classical authors down to the Sāsānid epoch knowing only the usual dualistic aspect of Mazdaism. For Dion Chrysostomos has, as will be shown below, probably only exposed Stoic conceptions of his time, perhaps mixing them up with some dim recollections of what he heard about the opinions of the Magians of Anatolia.

That the Mazdaist religion, certainly in the form contained in the Younger Avesta, was strongly influenced by the Babylonian doctrine and by other teachings is evident. In the development of the Mazdaist theology it seems, that the Magian element did much to amalgamate Babylonian and Iranian beliefs. The possible contact between Elam and Persia and between Assyria, the Ḫaldians and Hittites and the Medes can here be left out of account. It is therefore very probable that even the Avestic mentions of the boundless time and of the time of the long period show already a

[1] M. Haug, *Essays on the Sacred Language, etc., of the Parsis*, 12, apparently ascribes to Damaskios the Zervanite views given as those of Eudemos.

[2] In a paper published by the R. Academy of Copenhagen, A. Christensen exposes the view that the Zervanite system can be traced to the Achæmenian epoch; *Études sur le Zoroastrisme de la Perse Antique*, 45 ff.

connection with notions current in Western Asia and that they represent Hellenistic speculations on Chronos and Aion, perhaps modified by Chaldæan conceptions. In this line of thought the use of Aramæan is of importance, this language being officially employed in the western parts of the Persian empire since the days of Dareios I.

IV

Mesopotamian Conceptions of Time

Already Spiegel in his *Eranische Altertumskunde*[1] has pointed to Babylonian conceptions as the possible origin of the Iranian theory of time as the first principle.[2] Other scholars have seen in the Zervanite system influences of the astral cults of Mesopotamia.[3] The combination of the veneration of time as supreme deity with the ideas of fate and space show their near connection with astrological notions. The age of astrology and of astronomical observations in Mesopotamia cannot be denied, although it is quite uncertain to what period the development of astrology as a science belongs. Even if the Chaldæan astronomers began from the eighth century B.C. onwards to measure the movements of the stars as such and not as religious or magic functions,[4] there is nevertheless no sign of the Chaldæans having proclaimed time as the highest principle. They knew of great world periods, just like the Egyptians or like the ages which Hesiodos treats, but absolute time was apparently unknown to them. It may be therefore assumed that the philosophical notion of absolute time did not develop in Mesopotamia without the influence of Greek thought. From

[1] ii, 9, 187; J. Darmesteter, *Ormuzd*, 319.

[2] The "Old man of the days" in Daniel, vii, 9, has first been compared to Zrvan- by Movers, *Phönizier*, i, 262.

[3] R. Eisler, *Weltenmantel*, ii, 505; F. Cumont, *Textes et monuments*, i, 20.

[4] *Synkellos*, 389, 20 ff., ed. Dindorf; Schnabel, *Berossos*, 163, 178; Meissner, *Babylonien und Assyrien*, 416; Cl. Ptolemæus, *Almagest*, iv, 5, ed. Heiberg; Kugler, *Sternkunde u. Sterndienst*, ii, 7 ff., 68 ff.; Gressmann, *Die hellenist*[illegible]

the sixth century B.C. onwards Babylonia and Persia have been in touch with Greek elements. The Hellenistic period rendered this contact closer. Greek philosophy and science were studied in Babylonia. Kidinnu,[1] the Kidenas of the Greeks, and his successor Sudines as head of the school of astronomy at Sippar left Greek treatises written shortly after the death of Alexander the Great.[2] If these men did perhaps only use Greek for such books as were to be distributed throughout the Hellenistic world, it is in any case quite probable that they were not ignorant of the Greek studies, principally such as the Pythagoræan school had pursued. At an earlier period Eudoxos of Knidos had already taken a lively interest in the results of astronomical observations of an empirical nature which the oriental sages had taken up since old times. Eudoxos seems to have communicated his knowledge to Platon and to the Academy, amongst whose members a Chaldæan appears.[3] While Eudoxos condemns astrology as such, without telling us whether he knew it already as an organized system or only as an empirical collection of data, Platon apparently did not occupy himself with this science; partly inspired by Eudoxos he developed in the later stage of his philosophy an astral mysticism of great depth, but no astrological system.[4] The systematic study of the astronomical and astrological facts collected in the East begins under Greek impulse, and it is only in the period after Platon that astrology as a science seems to start. Berossos, the Babylonian priest,[5] held a school of astrology at Kos.[6]

[1] Kugler, *Im Bannkreis Babels*, 122. Bezold in Gundel-Boll-Bezold *Sternglaube*, 14, considers the identification of Kidinnu with Kidenas as probable, but not as absolutely certain.

[2] Vettius Valens, *Anthologia*, ix, 11, 352, 22 ff., ed. Kroll.

[3] W. Jaeger, *Aristoteles*, 133 f. The position taken up by Eudoxos towards astrology is illustrated by Cicero, *De div.*, ii, 42, 87, cf. Bezold-Boll, *Reflexe*, etc., 9 ff.

[4] Boll, *Sternglaube*, 25; Kerényi, *Arch. f. Rel. Wiss.*, xxii, 245 ff.

[5] Lehmann-Haupt, *Neue Studien zu Berosos*, Klio, xxii, 1928, gives the latest results of the study of the questions concerning Berossos.

[6] Vitruvius, *De architect*, ix, 6, 2. According to Plinius, *Nat. Hist.*, vii, 123, a statue was erected for him at Athens.

He taught the great circle of cataclysms connected with the planets and with certain constellations. At the same time he exposed Babylonian theories on the moon. The scientific foundation of the heliocentric system discovered by Aristarchos of Samos was given by Seleukos from Seleukeia in Babylonia, called the Chaldæan.[1] All this shows that a keen scientific interest in astronomical questions prevailed at that time in Babylonia. It seems that the scholarly party amongst the Chaldæans did not approve of astrology, in which domain the ancient religious superstitions remained in power, if we believe an assertion of Strabon, apparently inspired by Poseidonios.[2] For the scientific consolidation of astrology the Greek work of Teukros the Babylonian completed in the first century A.D. was of the highest importance. In the East as in the West this book has been translated and used widely, amongst others by Varāhamihira.[3]

It is to the Hellenistic period that such movements as the Mithriacic cult, the description of the teachings of the Magi of Kappadokia by Dion Chrysostomos and other factors belong. Therefore it can be assumed that Greek influences have made themselves felt in all these phenomena. No other source can be given for the system, which considers time as the highest essence. The Chaldæan Bēl, the lord of fate as a Latin inscription calls him,[4] becomes the prototype of the highest god, *ὕψιστος*; as such we find Sabazios, the Jupiters of Doliche, of Heliopolis and other deities.[5] Kronos has often been thrown together with Chronos. As Saturn took in Babylonia in certain respects the place of the sun,[6] Kronos was

[1] Plutarchos, *Plat. quaest.*, viii, 1; *Strabon*, xvii, 1, 6.

[2] *Strabon*, loc. cit.

[3] J. V. Negelein, *ZDMG.*, n.s. vii, 2.

[4] *CIL.*, xii, 1227.

[5] F. Cumont, *Pauly-Wissowas Reallex*, 2nd ed., s.v. Hypsistos.

[6] Saturn was considered as the star of Ninurta-Ninib and at the same time as that of Šamaš; H. Rawlinson, *Cuneiform inscr. from Western Asia*, ii, pl. 49, 3, 19. In certain aspects Saturn is looked upon as the representative of the sun; *Cun. Texts from Babyl. Tablets*, xxv, 50; Jastrow, *Rel. Babyl. und Assyr.*, ii, 445, 483 ff.; Furlani, *La religione babilonese-assira*, i, 168.

identified with Helios and we find Ēl-Kronos as the god of Byblos whom Philon of Byblos describes.[1] An African dwarf-god Bes who was adopted by the Egyptians and got mixed up with other deities has been considered as a god of time,[2] but a representation of his which has been ascribed to the sixth century B.C. shows him simply like Kronos-Ēl with four wings and with astrological signs. In Phoenicia Bes was taken up like other Egyptian deities. Repeatedly Kronos-Saturn is considered as representative of the Ba'al šamēn, the lord of the heavens, so in Roman times in north Africa.[3] All such conceptions are syncretistic and the assimilation of Kronos to Ba'al or Ēl in Syria and Phoenicia can only be traced to the beginning of the Hellenistic epoch.[4]

The notion of time is closely connected with that of fate. This conception again plays an important part in all astrological questions, every happening in the sublunar world being dependent upon the movement of the stars. The Near Eastern nations knew a goddess of fate under different names: Šīmat, Sima, Manāt in Arabia.[5] For the Greeks this deity was Tyche, in Persia it is Baxt. Here, too, it is doubtful, whether the oriental goddess ever assumed the character of a personification of fate, before the East came into closer contact with the Greek teachings about τύχη, μοίρα, ἀνάγκη, and εἱμαρμένη. All over the Hellenistic Orient the local gods were assimilated to Greek conceptions and got mixed up with them. For Phoenicia and Asia Minor this process is very old. In Arabia the deities of fate, Manāt and Sa'd, may, as some

[1] Euseb., *Praep. ev.*, i, 10, 36 f.

[2] Gressmann, *Hellenist. Gestirnrel.*, 25.

[3] *CIL.*, viii, 8443, 8444, 8451, 8453. Although the cult of Mithras is found in the same place Sitifis, it is not necessary to connect this identification of Saturn and Ba'al šamēn with Mithriacism. For the monument of Sitifis cf. Cumont, *Textes et monuments*, i, 170, 405 f.

[4] R. Reitzenstein, *D. iran. Erlösungsmysterium*, 129.

[5] H. Zimmern, *Islamica*, ii. On Manāt and similar deities like Sa'd, Gad, 'Audh, cf. Wellhausen, *Reste arabischen Heïdentums*, ii, 28 f. For Gad in Syria, etc., s. Jeremias, Chantepie de la Saussaye, *Religionsgesch.*, i, 4th ed., 628.

scholars believe, have been introduced from foreign countries, Arab names having been used for such conceptions, for the idea of fate and destiny (al Manīya) is not strange to the original Arab mind. In any case these abstract notions took a very concrete shape in Arabia and those new forms of perhaps old traditions do not seem to point any more to fatalism and to astrology.[1]

Now Marduk of Babylon, the Bēl rabū, the great lord, as successor of Enlil-Bēl of Nippur, is the master of fate.[2] His temple E-sagila at Babylon contains the chamber of destiny which was probably copied from that in the temple E-kur of Nippur, representing the heavenly hall of the gods.[3] It was believed that Marduk distributed the destinies on New Year's Day. The idea that the fate of the world and that of man are determined beforehand is old in Babylonia, but it cannot be decided with certainty, whether this conception was in early times already connected with the position and movement of the stars.[4]

Berossos, who was a priest of the Bēl of E-sagila and who dedicated his Βαβυλωνιακά to Antiochos I Soter,[5] seems to

[1] Wellhausen, loc. cit., 211. Certain hints to astral connections are contained in the Qur'ān, s. 53, 1; 81, 15 f. Besides al Manāt there remains al Manīya as a formless and unpersonal force (De Lacy O'Leary, *Arabia before Muhammad*, 195). This conception has been an important contribution of the Arabs to Islam, cf. W. Caskel, *Das Schicksal in der altarabischen Poesie*.

[2] M. Jastrow, *Rel. Bab. und Assyriens*, i, 110,$_1$; 289. A. Jeremias believes Marduk to have inherited from the son of Ea of Eridu the faculty of deciding destiny; *Handb. der altor. Geisteskultur*, 274 f., c. 238 f. Chantepie de la Saussaye, *Religionsgesch.*, i, 4th ed., 561, 589 ff. Marduk continues in general the parts of Enlil, Ea and Anu. For the whole question of the Babylonian conception of fate consult H. Zimmern, *Verh. d. sächs. Ges. d. Wiss.*, 1918, 70, 5; *ZDMG.*, 1922, n. F. 1., and the article in *Islamica*, ii; Br. Meissner, *Babylonien und Assyrien*, ii, 124 f., 130 f. As the heavenly scribe, Nabū is sometimes considered as the keeper of the tables of fate.

[3] Jastrow, loc. cit., 457, cf. 337, 2, 463.

[4] A. Jeremias, *Das alte Test. im Lichte des alten Orients*, 247 f., believes this, but other authorities utter more reserved opinions on this subject.

[5] Juba of Mauretania, *Περὶ Ἀσσυρίων*, according to Tatianus, *Or. ad Graecos*, c. 37, 38 ed. Schwartz, cf. Clemens Alex. *Stromata*, i, c. xxi, 122, 1 f., p. 391 s.; Eusebius, *Praep. ev.*, x, 11, 493.

have assimilated Bēl to Kronos. In his history of the Flood Berossos appears to have said that Kronos warned Xisuthros of the coming cataclysm.[1] On the other hand Bēl is translated by Zeus in Berossos' description of the origin of the world according to Oannes, but it is more probable that Alexander Polyhistor or even some later author simply tried to give an explanation of the Greek meaning of Bēl, which has nothing to do with Berossos himself.[2] The Armenian version of Eusebius' *Chronica*, which may belong to the fifth century A.D., distinguishes between Kronos as father of Aramazd called by some Zrvan, "time," and Bēl as Zeus-Aramazd.[3] Ps. Moses of Chorene, i, 6, apparently used some Sibylline book which goes back to Berossos; Berossos was later on even made to be the father of the Babylonian, Egyptian, or Jewish Sibylle.[4] In translating the verse which has come down to us in the *Oracula Sibyllina* iii, 110 [5] Ps. Moses rendered Kronos in the usual way by Zrvan, giving the end of the verse Ἰαπετός τε as a name "Japetost'e". It is very probable that Berossos himself identified Kronos with Bēl. On the other hand Agathias writing in the sixth century A.D. pretends that according to Berossos Zeus and Bēl were identified by the Persians.[6] A number of details like the employing of the term ἐκπύρωσις point to Berossos' intimate knowledge of Greek philosophy and religious thought, a fact which cannot surprise in a man who was the leader of a school of astrology in Kos.[7] He and other oriental circles were apparently familiar with the speculations on Kronos and Chronos [8] and it

[1] Berossos fr. 34 = Eusebius *ap. Syncellum* 53, 19 ff. ed Dindorf.

[2] Berossos fr. 12 = Eusebius *ap. Syncellum*, 52, 1 ff.–53, 15, ed. Dindorf. On the nature of the text of Alexander Polyhistor which Eusebius had before him cf. Schnabel, *Berossos*, 134 ff.

[3] Eusebius, *Chron.*, x, 19 ff.; 7, 29 ff., ed. Karst.

[4] *Pausanias*, x, 12, 9. Suidas s.v. Sibylla, *Justinus, coh. ad gentiles*, c. 37.

[5] ed. Geffcken.

[6] *Agathias*, ii, 24, ed. Niebuhr.

[7] s. above, p. 80.

[8] *Macrobius*, i, 837; Proclus, *Plat. Theolog.* v, 3 ff.; in Timaeum, 295, B. ff.

is evidently here that the system rose which gave time the pre-eminence as the primar principle of the world. That Berossos was acquainted with the rationalistic explanation of mythology current in certain Greek circles appears from the curious way in which he treats the ancient Babylonian legends of the origin of the world, presenting them as pure symbols. Berossos may be regarded as the ultimate source from which Diodoros of Tarsos, Theodoros of Mopsuhestia and others drew their knowledge.

As we have no clue leading from purely Iranian premises to the Zervanite system, it will be safe to assume that this belief did only come into existence when the Babylonian ideas on Bēl-Marduk as the lord of destiny had been combined with Greek philosophical speculations on time. The monotheistic tendencies which the Gāthās show may have rendered certain Iranians more ready to accept such theories. It must be remembered that Mazdaist Mages and Chaldæan priests were in close contact just in Babylon. The Zervanite theology which dominated at any rate at the beginning of the Sāsānid epoch, can therefore be defined as the result of a combination of Chaldæan and Greek influences on Iranian thought.

V

Greek and Hellenistic Speculations on Time

Speculations on time, Chronos, as the first principle seem to be connected with the Orphic and Pythagoræic school. The original *ἱερὸς λόγος* of the Pythagoræans appears to have identified the sacred number four with the seasons; this doctrine was in any case known to Aristotle and to Androkydes.[1] According to other opinions ascribed to the school of Pythagoras, the world is a living organism which creates through breathing out of an airy boundlessness space and time, these two being the *principia individuationis* which

[1] K. Joël, *Gesch. der antiken Philos.*, i, 354.

allow the plurality to come into existence.[1] Little enough is known about the teachings of Pythagoras and his immediate followers. In any case, this school, which was organized like an order, somehow took up the cosmogonic speculations ascribed to Orpheus and other mystical seers. Already Herodotos [2] declares the so-called Orphic and Bacchic doctrines for Egyptian and Pythagoræic. The possibility of an Egyptian origin of such speculations can be left out of account, but it is significant that the Orphic teachings appeared to Herodotos to have been influenced by Pythagoras. In these circles speculations on Kronos and Chronos seem to have been spread. The cosmogony of Pherekydes (sixth century B.C.) as contained in his ἑπτάμυχος began with the following sentence: *Ζεὺς μὲν καὶ χρόνος εἰς ἀεὶ καὶ χθὼν ἦν.*[3] Here we see time considered as one of the eternal principles. Pherekydes takes up an intermediate position between Orphic speculations and philosophy.

A very profound definition of time is given by Platon in his dialogue *Timaios*.[4] He distinguishes there between absolute time, eternity, remaining a unity and its image which moves according to numbers and which is bound to the world of appearance. This time is nothing but the rhythmically moving simile (εἰκών) of Timelessness. The sun, the moon, and the other five planets are said to have been created through the rational reflection of God on time. It must not be overlooked that Timaios, whose words Platon pretends to reproduce, is a Pythagoræan philosopher.

Here again the notion of time is connected with astronomy. Platon mentions the so-called "great year", i.e. the period

[1] K. Joël, loc. cit., 373.

[2] ii, 81, cf. 123.

[3] Diogenes Laërtios, i, 119. The title of the prose work of Pherekydes is sometimes given as *Πεντέμυχος*. That Pherekydes calls Zeus Zās, the living, is of no importance for the problem of time. It must be noted that for Pherekydes time is not the highest principle, but only one of the eternal factors.

[4] *Timaios*, 37, 38.

which is thought to revolve once during a certain epoch of the world. Such periods are known to Eastern nations like the Babylonians and the Egyptians, although the way of computing the time is in each case different. The doctrine of the various ages of the world is already exposed by Hesiodos. Herakleitos and Euripides speak of Aion as a young boy[1] rendering poetically concrete the spiritual conception of the great world period. Aion, in the meaning of a certain period, is only relative time, while Chronos is time in the absolute sense.[2] The theory of the Great Year is known to Aristoteles and to Theopompos. Notions of the oriental doctrines about the Great Year may have been brought to Greece by the astronomer Eudoxos, a friend of Platon, who visited Egypt, but the idea itself is not strange to Greek speculation. Therefore the news introduced by Eudoxos from the East may only have fomented the interest for the whole question, but he did not give a new notion to Greek philosophy. Aristoteles developed in his work *περὶ οὐρανοῦ* the theology of Aion on the lines of Platon's indications,[3] on the other hand time is according to Aristoteles a number concerning movement by reference to before and after, but time is a number which cannot exist without a counting being, i.e. it is no absolute number.[4]

It is a well-known fact that just the *Timaios* influenced strongly the speculations of later philosophers, especially those of the Stoic school.[5] Amongst this school oriental tendencies were strongly pronounced. Already Zenon, the

[1] *Herakleitos*, fr. 52; Euripides, *Heraklid.* 900: *Αἰὼν χρόνου παῖς*, treating Chronos as the higher and more comprehensive notion.

[2] U. v. Wilamowitz-Moellendorff, *Euripides' Herakles* ii, 2nd ed., 155. Platon distinguishes between the two notions, *Anth. Pal.*, ix, 51: humanity owes to Aion individuality, name and shape, but the *δολιχοδρόμος χρόνος* alters everything.

[3] W. Jaeger, *Aristoteles*, 318, *περὶ οὐρανοῦ*, A, 9, c. B, 1 on *ἄπειρος χρόνος*.

[4] *Phys.*, iv, 11 p. 219 b 1, 8; 220 a, 24. The notion of time comes according to Aristoteles from two sources, from the soul and from movement.

[5] c. R. M. Wenley, *Stoicism and its Influence*, London, 1925.

founder of the Stoa, came from a town with a mixed population,[1] for Kittion was a Greek city with numerous Phoenician inhabitants. Chrysippos was a Cilician like his pupil Zenon of Tarsos, who must not be confounded with his namesake, Zenon of Kittion. Diogenes of Seleukeia on the Tigris was called the Babylonian; Tarsos was the birthplace of both Antipater and Athenodoros. While Panaitios of Rhodos did not recognize astrological and mantic practices, the Syrian Poseidonios of Apameia did a great deal to diffuse Platonic, Aristotelic and Pythagoræan doctrines in the Eastern hemicycle. His commentary on *Timaios* is said to have been the starting point of many movements.[2]

The Hellenistic period brings the cult of a deity *αἰών*, the great world-epoch. This god appears first in the Egypt of the Ptolemæan dynasty. In Egypt, Aion seems to have been identified with a native god of the earth and of harvest, and he became the tutelar deity of Alexandria.[3] The feast of Aion was celebrated on the 6th of January, and this date was fixed in 1996 B.C., as some eminent scholars have been able to demonstrate.[4] Aion was mixed up with Dionysos [5] and there seem to have existed relations between the mysteries of Aion

[1] Cicero, *De nat. deor.*, i, 36, says that Zenon taught a mystic doctrine of time, but this testimony has mostly been interpreted in the way that Cicero gives Epicurean views of Zenon's opinion.

[2] It may be mentioned that it has been denied by certain scholars that Poseidonios ever wrote a commentary to *Timaios*, cf. K. Reinhardt, *Poseidonios*, 1921; *Kosmos und Sympathie*, 1926. This opinion does, however, not seem founded. According to K. Reinhardt, Poseidonios was the first Greek philosopher who proclaimed the mystical correspondence between macrocosm and microcosm, thus introducing this ancient oriental conception into the Stoic philosophy.

[3] R. Reitzenstein, *Nachr. d. Gött. Ges. d. Wiss.*, 1904, 317 ff.

[4] c. K. Sethe, *Nachr. d. Gött. Ges. d. Wiss.*, 1919, 287 ff., Ed. Meyer, *Gesch. d. Altertums*, I, ii, 3rd ed., § 163. E. Norden, *Die Geburt des Kindes*, 38 f. The birthday of the sun was celebrated in Alexandria on December 24th–25th. At the time of the foundation of Alexandria, 331 B.C., this date corresponded to that of the winter solstice.

[5] About the cult of Dionysos in the temple of Jerusalem and the festival introduced by the Seleukides cf. Kern, *Archiv. f. Rel. Wiss.*, xxii, 198; F. Wilbrich, loc. cit., xxiv, 1926, 170.

and those of Osiris.[1] The Nabatæan god Dusares whom the Greeks considered as a form of Dionysos or Helios was honoured by a festival resembling that of the Alexandrian Aion; we further hear about such celebrations from Syria.[2] This Hellenistic *αἰών* need not be connected with Iranian conceptions. It seems to be a deification of the idea of the great world-epoch, evolved in Lagide Egypt.[3]

Philosophically, the very ancient ideas contained in the cult of Aion under various shapes were propagated by the Stoa and the notion of Aion was combined with that of fate, *μοίρα*. From the Stoic school, principally represented by Poseidonios, these speculations passed into other systems, into the mysteries and all the varied schools of theological thought which sprang up in Hellenistic times. We have seen that the Stoic ideas can be followed up to Greek precedents and that influences flowed in from various oriental sources. On the other hand, the philosophers spread the doctrine of Aion; we find it in Rome at the time of Sylla and Caesar, and Aion was identified there with Janus.[4]

The mixture of philosophical and religious conceptions appears in such phenomena like the cult of Mithras. This Iranian deity became the centre of a syncretistic religion based on mysteries. How far Iranian elements combined with "Chaldæan", Anatolian and Greek notions cannot be

[1] Cf. Damaskios in his life of the Neo-Platonician Isidoros of Alexandria = Photius Bibl., 242, see R. Asmus, *Byzant. Ztschr.*, xviii, 19.

[2] K. Holl, *Berl. Sitzungsber.*, 1917, 428; Wilh. Weber, *Arch. für Rel. Wiss.*, xix, 1919, 330 ff. On an Arabian festival cf. R. Eisler, *Arch. f. Rel. Wiss.*, 1924, 631 f.

[3] Cf. Zepf, "Der Gott *Αἰών* in der hellenistischen Theologie," *Arch. f. Religionswiss.*, xxv, 1927, 225, ff. The whole problem has been studied by Jul. Kaerst *Gesch. des Hellenismus*, ii, 2nd ed., 239 ff., where the spontaneity of the Greek conceptions is underlined. Valuable works on the question are due to E. Norden, *Die Geburt des Kindes*, W. Weber, *Der Prophet und sein Gott*, to H. Junker, loc. cit., to Weinreich, *Archiv. f. Religionswiss.*, xix, 174 ff., to Lackeit, *Aion*, i and ii, to J. Kroll, *Die Lehren des Hermes Trismegistos*, 67 ff., and especially to R. Reitzenstein in his numerous studies.

[4] *Lydus de mens.*, iv, 1, p. 64, 12 Wünsch; cf. R. Reitzenstein, *Das iranische Erlösungsmysterium*, 210 f., 211_4.

determinated in every detail. In any case, Greek notions play a very prominent part in the Mithriacism which can be followed through the Roman Empire. It must be borne in mind that already the Achaemenian religion was evidently strongly influenced by Elam and Babylonia, while Hittite and Ḫaldian conceptions may have been important for the development in Media. Now the figure of an original god Kronos is known to Mithriacism.[1] The representations of this god show a mixture of oriental types. Besides monuments, which belong to Mithriacism, there are similar figurations on coins of Mallos in Cilicia giving Ēl-Kronos or on those of Byblos corresponding to the description given by Philon of Byblos of the winged god.[2] Even if Iranian factors have to be taken into consideration it is probable that the speculations about Kronos in the Mithriacic cult were dependent on the Stoic doctrines. In any case the Mithriacic ideas are of no avail for settling the question of the age of Zervanism in Iran proper.

The same can be said about the interesting description which Dion Chrysostomos of Prusa [3] gives of Persian religious beliefs of eastern Anatolia. This passage reflects Stoic opinions and not ancient beliefs of the Magi of Asia Minor. We can therefore not follow the different conclusions which have been founded on Dion Chrysostomos' mention of the horses of the sun, etc. It is certain that he and other authors of his time possessed a certain knowledge of Persian religious beliefs, but just like Herodotos they were apt to draw comparisons with Greek conceptions and to interpret Greek ideas into their description of Iranian conceptions. Therefore the mention of an original principle "ἄπαυστον ἐν ἀπαύστοις αἰῶνος περιόδοις" does not refer to the doctrine of Zrvan- akarana-,

[1] F. Cumont, *Textes et monuments*, i, 74 ff.

[2] Eusebius, *Praep. ev.*, i, 10, 36 f. For the coins of Mallos cf. J. de Morgan, *Numismatique orientale*, 62 f.

[3] *Or.* 36, 39 f., ed de Arnim. Dion lived from about A.D. 40–120; cf. Jackson, *Grds. d. iran. Phil.*, ii, 671, for the Greek influences reflected by Dion. His doctrines combine Stoic and Cynic notions, cf. Kafka-Eibl, *Der Ausklang der antiken Philosophie*, 77.

but it reflects simply speculations generally current at the time of Dion, the well-known Stoic teaching of the revolving periods of the world.

The tomb of king Antiochos I of Kommagene on the Nimrūd Dāgh has often been adduced as a proof of Zervanite conceptions. This semi-Persian monarch is proud of the Achæmenian descent to which he pretends like the dynasts of Pontos or of Kappadokia, while the house of Kommagene is at the same time linked with that of Seleukos, the founder of the little kingdom Mithradates Kallinikos having married Laodike, daughter of Antiochos VIII Grypos. Persian and Greek deities are named together in the inscriptions [1] of this monument and the representations of these gods are typical for the religious syncretism of the Hellenistic period. Identifications similar to those used by Antiochos I of Kommagene are known from Armenia, where dynasties were founded after the battle of Magnesia by two generals of the Seleukids, Artaxias and Zariadres, the descendants of Artaxias reigning in Armenia proper and those of Zariadres governing Sophene.

Now Antiochos I mentions the ἄπειρος αἰών and the χρόνος ἄπειρος. If the boundless Aion does not simply mean the eternity which receives the king after his death, the passage could be so constructed as to infer that the king's body is to rest till the boundless eternity begins [2] and this might be the Zrvan- akarana- of the Avesta, not however Zrvan- as Kronos or the supreme god. It seems preferable to see in the ἄπειρος αἰών of the Nimrūd Dāgh only eternity in the sense in which Aristotle uses this expression.[3] Again nothing else is meant by the expression χρόνος ἄπειρος. This boundless Chronos is to regulate the succession in Kommagene according to the μοίρα of the different genera-

[1] Cf. Dittenberger, *Orientis graeci inscr. sel.*, Leipzig, 1903, no. 383; L. Jalabert and R. Mouterde, *Inscr. grecques et latines de la Syrie*, fasc. i; *Commagène et Cyrrhestique*, Paris, 1927, No. 1; cf. A. Wilhelm, *Wiener Studien*, 1929, 127.

[2] H. Gressmann, *Die hellenistische Gestirnreligion*, 23 f.

[3] περὶ οὐρανοῦ, B 1.

tions of humanity. It is in any case quite impossible to identify this Chronos with the Zrvan- darəghōχvadhāta-, Chronos being the more comprehensive notion which alone could render Zrvan- akarana-. But it seems unnecessary to search in the Kommagene inscription for proofs of the Iranian belief in Zrvan- as the highest deity, the passages referred to being easily explained by the teachings of Hellenistic philosophy without having to go back to any oriental conception in particular.

The monument of Antiochos I of Kommagene is imbibed. with the spirit of astrology. It is typical and quite comprehensible that the speculations on time are in close contact with those on fate and the influence of the stars on the world.[1]

At a much later period, about A.D. 400, the Alexandrine poet Claudianus describes the primar god Aevum immensum in his cave which is encircled by a snake.[2] Alexandria was, as we have seen, a centre of the cult of Aion. The Kronos of Mithriacism is generally represented as a deity with a lion's head. A serpent is twisted round this figure. It need not be denied that Claudianus may have heard of the Persian Zervanism, but it is not necessary to look there for a prototype of Claudianus' Aevum immensum, the more so as we hear nowhere of an Iranian belief connecting Zrvan- with a serpent. The Alexandrine surroundings with their mixture of creeds and philosophies explain by themselves the interesting poem of Claudianus.

VI

The Development of Zervanism

1. *The probable epoch of Zervanism*

It is possible to connect monotheistic tendencies in Mazdaism with the teachings of Zarathuštra. The doctrine of the Gāthās knows a spiritual deity reigning supreme in the non-corporal

[1] Cf., however, H. H. Schaeder, *Warburg-Vorträge*, iv, 1927, 140, 1.

[2] *De consulatu Stilichonis*, ii, 424 ff.

world. But the "wise Lord" of Zarathuštra was not considered by him to be time. Such notions were quite foreign to Zarathuštra. His Ahura- Mazda-, the supreme god, is of a different stamp. Whether he represents somehow an offspring of the so-called original monotheism (monotheistic pre-animism) of primitive nations as taught by Andrew Lang, is another question, which can remain untouched here.[1]

The original doctrine of the Gāthās fell into oblivion. Under the Achaemenian kings a polytheistic creed can be traced. Ancient Aryan beliefs were taken up again, or, if they ever had been forgotten, they were connected with the preaching attached to the name of Zarathuštra. For it must not be left out of mind that Zarathuštra's field of work lay in eastern Iran and that his doctrine, already misunderstood, only spread slowly in other parts of the country. There are a number of passages in the Avesta showing this process. Ahura- Mazda- is made to sacrifice to deities, which are received in the pantheon. Bloody sacrifices and the cult of Haoma-, both rejected by Zarathuštra, are in use. These facts may be explained as the result of a compromise between the popular belief and the reform of the great prophet of eastern Iran, ending in his monotheistic and spiritual teaching being superseded by a polytheistic creed. Besides Aryan elements a number of influences can be traced pointing to western Asia. The Persian conquest of Babylonia and before it the annihilation of the Assyrian empire by the Medes mark the beginning of this development.

It is outside of the scope of the present study to trace here the different stages of the Mazdayasnian evolution. Besides some testimonies from classical sources, there remain only the Avestan texts and the Persian inscriptions. This material is incomplete, but still it offers many clues. The texts of the Avesta belong to very different periods and they have been

[1] Cf. P. W. Schmidt, *Der Ursprung der Gottesidee*, i, 2nd ed., 1926, principally chap. iv. See, however, R. Pettazzoni, *Dio*; J. G. Frazer, *Worship of Nature*, i, 20; Haydon, *Journal of Religion*, 1926, 24.

manipulated at a late epoch, when their language was no more understood.

It is quite possible that the idea of Zrvan- akarana- itself even in the rather shadowy aspect of this notion retained in the Avesta is not older than the Hellenistic period, when the conception of absolute time became familiar to the East. The theory of the periods of the worlds can be however assigned to earlier epochs. This doctrine was familiar to Aristoteles,[1] and to Theopompos.[2] About 300 B.C. it was certainly known in Greece.[3] It is useless to demonstrate here how far the doctrine of a succession of ages of the world is diffused. In any case this teaching is not typically Iranian. But it is of importance that such speculations are only possible when a system of calculating time has been evolved—apart from the simple notion of a golden age and of a lost paradise, a conception which may be as old as human thinking. In the eyes of the Aryans the sky was originally a vault of stone behind which there was fire. The sun, the moon and the stars were openings in the heavenly vault.[4] This is a very different primitive conception than the complicated periods during which Ahura- Mazda- and Anra- manyu- are imagined to fight out their war.

The contact between the Aryan Iranians and western Asia can be old. Nevertheless the opinion that time is absolute and that it is the supreme principle does not seem to have been diffused among the Iranians before Greek philosophy became familiar to the East.[5]

Many details let the Parthian epoch appear as the starting point of the new Zervanite theology. Under the Arsakides,

[1] W. Jaeger, *Aristoteles*, 136.

[2] Born 376 B.C., cf. Plutarchos, *De Iside et Osiride* 46 s.

[3] H. Junker, *Warburg-Vorträge*, i, 1921–22, 146.

[4] Without following his deductions about the age of Zarathuštra, of the Vedas, and other details, attention may be drawn to the merit of Joh· Hertel in exposing clearly this early conception proper to the Aryan mind.

[5] Zervanism has been considered as a very ancient doctrine by R. Eisler, *Weltenmantel*, ii, 518 f.; Alfaric, *Revue d'hist. et litt. rel.*, vii, 1921, 1 ff.; cf. Reitzenstein, *Hellenist. Mysterienrel.*, 3rd ed., 360; H. Lommel, *Die Religion Zarathustras*, Tübingen, 1930, p. 23 ff.

the ancient texts of the Avesta were collected. At the same time the Parthian rulers remained on good terms with the Greeks living in their realm, and Babylonia was one of the centres of the empire. As nomad conquerors, coming from the steppes of inner Asia, the Arsakides formed an aristocracy, leaving the subject races and local rulers undisturbed. Atropatene with the neighbouring parts and the Persis [1] were apparently centres of the Magian priesthood [2] and there perhaps some of the ancient traditions were preserved of the once monotheistic teaching of Zarathuštra. Greek and Babylonian traditions were not unknown to these priests, and it is in such circles that the new theology rose, recognizing absolute time as the first principle. Whether the Parthian clergy or that of the vassal principality of Pārs developed the Zervanite system, cannot be determinated with absolute certainty. It is worthy of notice that, according to Andreas, the Manichæan fragments in the Arsakide dialect never use the term Zurvōn as designation of the highest god, but replace this expression by " father ".[3] This points to the south-west of Persia as the more probable origin of Zervanism. Even if the roots of this dogma should lie in earlier periods, Zervanism did not become a recognized system before the end of the Parthian dynasty.[4] At least there are no earlier testimonies left than the remains of Mānī's writings, and these reckon with the Zervanite system as the official theology of the epoch, although in the scarce fragments to be attributed to Mānī himself Zrvān is not mentioned. But as he called the

[1] The two Middle-Iranian languages correspond to these centres: Pahlavīk and Pārsīk.

[2] On their coins the Frataraks, Governors, of Pārs call themselves " of godly descent " like the Sāsānid sovereigns, " the spiritual offspring of the gods ".

[3] Waldschmidt-Lentz, *Berl. Abh.*, 1926, 4, 71. Zurvōn designates in the northern dialect always " age " (Andreas, loc. cit.), i.e. = avestic Zarvan-.

[4] J. Scheftelowitz, *Ztschr. f. Indol. u. Iran.*, iv, 334, believes that Zervanism cannot be older than the introduction of astrology into Iran and that this system is post-Christian (loc. cit. 343).

"Son" of the "Father of Light", the Primeval Man, Ōhrmazd, Zrvān must have designated the supreme god, and later Manichæan texts use, therefore, Zrvān as the denomination of the highest Being. As Mānī was born under the rule of the last Arsakide and became acquainted with the Mazdaist religion in his youth, the Zervanite system must have been in vigour already then and must have rendered dualistic views more or less obsolete, because it would undoubtedly have been easier for Mānī to connect his dualistic religion with Mazdaism in its usual form.[1] In any case he would have called himself a reformer of such a dualistic Zoroastrianism, but the monotheistic creed of the Mazdaistic clergy of his epoch was absolutely contrary to his system. Just this circumstance offers with other items an explanation for the violent enmity with which Mānī was pursued by the Mōbēdhs.[2]

That Dion Chrysostomos apparently only exposes Stoic views under the disguise of Persian opinions or that he interpreted them at least in this way has already been stated. But if the passage Or. 36, 42, ed. de Arnim, should really refer to Zrvan as the supreme god, this testimony would again bring us to the Parthian epoch. The whole passage leaves, however, the impression as if Dion only wanted to express his own philosophical ideas according to the current notions of the Stoic school.

As far as the outside history of Zervanism is concerned,

[1] Mānī's system belongs to the Gnostic line and he was probably influenced by Bardesanes, by the Markionites, and by the sect known to Islamic authors as the Mughtasila. Manichæism is non-Iranian in spirit and Mānī adopted Mazdaist names and conceptions only to show that his new creed was the completion of the existing religions. Christian authors sometimes put Zervanism and Manichæism on the same line like Esnik of Kolb, 115 ff.

[2] If Philon *In Gen.*, i, 100, means Persian notions when he says according to Aucher's rendering of the alone extant Armenian translation "tempus ut Cronus vel Chronus ab hominum pessimis putatur deus", this testimony would prove the existence of Zervanism for the first century A.D. But it is not known to what creed Philon alludes; the most probable thing would be to think of the Alexandrine cult of Aion.

the result of the present investigation may be presented in the following way:—

In the Parthian epoch the reminiscences of the originally monotheistic tendency of Zarathuštra's doctrine seem to have led to a new system, combining Iranian motives with Hellenistic philosophical conceptions and with astrological notions. This theology considered absolute time as the first principle. It is probable that south-western Persia and Babylonia were the principal strongholds of the new creed, which was at first officially recognized under the Sāsānian kings. Whether Zervanism ever was dominant under the Arsakides cannot be stated, though the teaching itself must have existed already before the Sāsānian dynasty. In defending the Zoroastrian position against the Christians, principally in Armenia, Babylonia and Mesopotamia, it was favourable for the Mōbēdhs to be able to prove that Mazdaism was monotheistic in its tendency.

When the dualistic current was recognized as the alone orthodox one, can only be fixed approximately. Both theological systems may have existed beside each other, before the Dualists gained the victory. Under Yezdegerd II the Zervanite system was apparently still officially recognized if we assume the edict of Mihr-narsēh to represent at least some remains of an authentical tradition.[1] Religious movements are reported under the reign of Šāhpuhr II, but just the fifth century offers testimonies of the supremacy of Zervanism. The first serious attacks on this dogma may refer to the new translation of the Avesta texts into Pahlavī under *X*osrau I. The quotation from Damaskios concerning the so-called passage of Eudemos the Rhodian seems however to speak for Zervanism having remained in favour under that enlightened ruler, while *X*osrau II Āparvēz ordered new comments of the

[1] Gelzer, *Ztschr. f. armen. Philol.*, i, 149 ff.; Pettazzoni, *La religione di Zarathustra*, 197, believes Yezdegerd himself to have been an adherent of Zervanism, what can apparently be said too of other Sāsānian monarchs.

sacred literature to be undertaken.[1] This period would appear to be a fit time for the victory of dualism.

In the eastern parts of Iran and in central Asia Zervanism seems to have remained longer in force. Even the latest Manichæan fragments retain the name Zrvān for the "Father of light", the highest Manichæan deity. Lamaistic Mongols use for Brahma the Manichæan designation Äzrua, Zrvān, and call Indra Ōhrmazd.[2] The eastern Iranian dialects often identify Ōhrmazd with the sun.[3] In these regions he was therefore not considered as the highest god, but as a heavenly force depending on a supreme Being.

2. *The Zervanite Doctrine*

The religious system founded by Zarathuštra does not explain clearly why the purely spiritual Wise Lord allowed the corporal world to come into existence and where the evil came from. These questions seem to have puzzled the priests who worked out the theology of time as the highest principle. They tried to show how Zrvan- came to let the world be created. We cannot expect a purely philosophical deduction. The whole doctrine was intermingled with symbolic and mythological elements, giving the teaching a phantastic appearance.

The starting point must have been astrological considerations. Damaskios makes Eudemos say that the Magians call the highest principle Space or Time. Theodoros of Mopsuhestia has instead, fate, τύχη. This corresponds to the Iranian Baxt, a conception which we find in the Mēnūk i χrat.[4] It is evident that in the sense of astrology time as the absolute consequence was identical with destiny, fate coming in the

[1] Haug, *Essay on Pahlavi*, 147.

[2] Chavannes and Pelliot, *Un traité manichéen*, 513–4, 2, 520 n., 543.

[3] Sten Konow, *Manuscript remains of Buddhist Literature found in eastern Turkestan*, i, 219, 261; H. Junker ap. Joh. Hertel, *Die Sonne und Mithra im Awesta*, 253; *Das Awestaalphabet*, 106,₃.

[4] H. Junker, *Warburg-Vorträge*, i, 1921–22, 142, 171,ss, shows that the opposition of *baxt* and *bāgh baxt* points to different sources having been used in working out the text of the Mēnūk i χrat.

fixed moment. While the Iranian text co-ordinates Zrvān and Baxt, it calls both rulers (Pādišāh), thus permitting to assume that the two are really the same. For a philosopher like Damaskios it was not astonishing, that he considered as identical the temporal consequence as time and the expanse as space. He is however the only author ascribing such doctrines to the Iranians. In the younger Avesta we have seen airy Space or ether (Thwāša-) mentioned with the two aspects of time as an absolute conception and as the worldly aion. Air, i.e. wind, Vayu-, and ether seem to have been distinguished, but probably not in a very early period. In the Pahlavī literature alone Akaša-, absolute space, is mentioned, not in the Avesta. But this notion is not treated as being the same as time. Therefore the passage of Damaskios-Eudemos remains obscure. Perhaps the designation of Zrvan- akarana-, Thwāša-, Anaghra- raočah-, Vayu- and Misvan- gātu as χvadhāta- would offer a certain clue, if χvadhāta- is taken as "self-created", not as "ruler", but the latter sense is the more probable, χvadhāta- meaning "following its own laws"; furthermore, the enumerated notions are co-ordinated, not subordinated to Zrvan-. An explanation could be obtained if we believe the Zervanites to have regarded time, light, and space as one essence with different aspects.[1]

The sages tried to ascertain the designs of Time and Fate by studying the sky and the movement of the stars. The complicated system of classical astrology gives specified meanings to every aspect and to every constellation. The planets, including sun and moon, govern the destinies through their position in the twelve signs of the Zodiac.[2] Now evil

[1] c. Schaeder, *Warburg-Vorträge*, iv, 1924–25, 141 ff.; Junker, *Wörter und Sachen*, xii, 153 ff.; but see Christensen, *Etudes*, 53,3.

[2] In the Iranian version of the Manichæan doctrine the twelve signs of the Zodiac are the daughters of Zrvān. *Šikand gumānīk vičār*, 16, 29 f. ed. West, 170, transl. *SBE.*, xxiv, 245; Salemann, *Ein Bruchstück manichaeischen Schrifttums*, 19; F. Cumont, *Recherches sur le Manichéisme*, 60 f. By using Nēryōsang's Sanskrit translation H. H. Schaeder, *Warburg-Vort.* iv, 1924–25, 83, text of 82, 2, has been able to explain this difficult passage.

forebodings attach to some planets, but only in certain aspects. Yet the Mazdaist astrological traditions treat the planets throughout as nefarious powers, an opinion which the Avesta reflects indirectly in so far as Tištrya-, Vanant-, Satavaēša- and Haptōiringa- are the keepers of heaven. But no stars are yet opposed to these keepers, who resemble the Indian Lokapālas more than anything else. The condemnation of the planets which the books in Pahlavī pronounce cannot be original [1]; besides some of these demonic beings like Hvar- χšaēta- and Māh-, Vərəthraghna- and Anāhita- are Yazata-s; Tīr-, Mercury, appears in names and on coins. He was replaced in the sacred texts by Tištrya-.[2] The Avestan calendar retains the ancient names, showing a number of planetary gods as Ahuric beings, amongst them Ahura-Mazda- himself as Jupiter. Later on legends have efforced themselves to explain the fact that names of the good creation have been attached to daēvic powers. The circumstance alone that the planets are in the eyes of the Zoroastrian astrologer evil beings, proves the comparative independence of the Magian system. The Magians were known as competent astrologists already in classical times. Tištrya- had replaced Tīr-, when Plutarchos got acquainted with the Iranian system, for he mentions Seirios as the principal star.[3] The Mēnūk i χrat, a treatise with Zervanite tendencies, describes the part played by the sun, the moon and the twelve signs of the Zodiac on the side of Ōhrmazd.[4] The seven planets, the leaders of the army of Ahriman, are opposed to the Ahuric constellations.[5] The 'Ulemā i Islām have an altered con-

[1] Cf. I. Scheftelowitz, *Entst. d. manich. Religion*, 10.

[2] *Yašt*, xiii, 126, has the name of a Mazdayanian Tīrōnakathwa-.

[3] *De Iside et Osiride*, c. 47.

[4] When the signs of the Zodiac were taken over by the Iranians is difficult to state. A. Weber has thought of the similarity of the Iranian Zodiac and that propagated by the school of Bardesanes, *Berliner Abhdlg.*, 1860, 326 ff. cf. Spiegel, *Die traditionelle Literatur der Parsen*, 99.

[5] Sun and moon appear here on the side of Ōhrmazd, but at the same time they belong to the seven generals of Ahriman. This shows the syncretistic character of the whole tradition.

ception, the names of the planets having been replaced by such of demons. Again the Rivāyat cod. xii suppl. Anquetil, distinguishes evil and beneficious planets.

The Armenians replaced the name of Saturnus, Kēvān, by Zrvan (Zrovan)[1]; we find in Armenia this designation too as the translation for Kronos. Here an Iranian influence is to be felt only in so far as the Armenians took Zrvan- in the meaning of Chronos-Kronos. The Bundahišn c 2 makes Kēvān the principal leader of the dark forces. If other deities including sun and moon have been considered as nefarious planets, it cannot surprise to find Kēvān-Zrvān in this company.

Eznik declares that Zrvan can be translated by Baxt, "destiny," and by P'ark', "glory".[2] Theodoros of Mopsuhestia only has τύχη. P'ark' corresponds to the Avestic *χᵛarənah-*. It may be remembered that Šahrastānī makes Zrvan- proceed from light, this being then the first and highest principle. Anaghra- raočah-, the lights without beginning, are known to the Avesta, and the *χᵛarənah-* is a form of light. Whether the Zervanites considered time, space, and light as different aspects of the same essence, cannot be decided. The possibility of such a conception may however be kept in mind.

On the whole the Zervanite theology apparently found a number of theoretical difficulties to surmount. It is not clear why Zrvan- started the creation. Even if it was admitted that he called into being the elements of good, the existence of evil is not to be accounted for. In this connection the Gāthic teaching itself has to face problems without solving them. The system of the Zervanites apparently tried to answer such questions in different ways. Repeatedly our sources speak of diverging opinions amongst the Mazdaists. The theory making Zrvan- himself proceed from light has

[1] Hübschmann, *Armen. Gramm.*, i, 94; 42; 506. Gelzer, *Z. arm. Götterlehre, Sächs. Akad.*, 1895.

[2] 113, 131 f.

been mentioned above. According to the 'Ulemā i Islām time alone being non-created was the first principle and it made fire and water and their union again produced Ōhrmazd. How Ahriman came into existence remains uncertain. In the Iranian sources he is suddenly there.

The Armenian and Syrian authors as well as Šahrastānī all give a mythological explanation for the creation of evil. Whether all these reports come from one and the same source or not can be left an open question, because an original description of Zervanism by Theodoros of Mopsuhestia, Diodoros of Tarsos or some other author would lead ultimately to the Zervanite belief such as it got known to the non-Mazdaist circles. The acts of the Christian martyrs can in any case be considered as comparatively independent testimonies.[1]

Now Theodoros of Mopsuhestia [2], Eznik,[3] Elišē,[4] Theodor bar Kōnai [5] and the acts of Ādhurhormizd [6] all pretend that Zrvan- offered up a sacrifice for a more or less long period. The critics of Zervanism immediately put the question, to whom Zrvan- sacrificed, because he must have recognized a higher deity. This is not necessary, although Šarahstānī mentions light as the highest principle from which Zrvan- was evolved. Eznik again calls Zrvan- synonymous with P'ark', the *χ^varənah-*. He says later on that as "they", i.e. the Mazdaists, pretend Zrvan- sacrificed to P'ark'.[7]

The *χ^varənah-*, the mystical heavenly glory, a form of light, was therefore the object of Zrvan-'s adoration. This *χ^varənah-* was the symbol of kingdom and we have seen Zrvan- treated as sovereign [8] and Pādišāh. Sacrifices to the *χ^varənah-*

[1] Cf., however, above H. H. Schaeder's opinion about the acts of Ādhurhormizd depending on Theodoros of Mopsuhestia.

[2] Loc. cit.

[3] 113, 118 f.

[4] 375a.

[5] Pognon, loc. cit., 111.

[6] Nöldeke, *Festgr. an Roth*, 36; ed. Bedjan, 577.

[7] 118.

[8] The possible double sense of "ruler" and "self-created" attached to the term *χ^vadhāta-* could refer to the heavenly sovereign as well as to the king on earth, meaning that he draws his power not from a human source.

are not mentioned in the Avesta, but in Yt 19, 46 ff. we find Spənta- Manyu- and Anra- Manyu both trying to obtain it. The comparison of the heavenly hierarchy with a monarch and his court on earth is a notion common to the East. It goes back to the idea that the material world is but an image of the sky, and this conception again is the base of all astrology. The movement and position of every constellation in heaven corresponds to events in the sublunar sphere.

According to the Mazdaist theology Zrvan- apparently was figured as sacrificing to the *χ^varənah-*, which is a characteristic of the gods and of Ahuric institutions in general. If the description given by Theodoros of Mopsuhestia is correct, that Zrvan- begat Ōhrmazd and Ahriman, σπένδων, it was a Zaothra- ceremony which was meant. Sacrifice in itself is believed to possess magic power. This opinion underlies the Vedic ritual, and it is noteworthy that in Iran such ancient Aryan superstitions may have again been introduced by the clergy. Šahrastānī does not mention a sacrifice, he speaks of Zrvan- "murmuring",[1] meaning evidently prayers, a proceeding which is typical for the Mazdaist ritual. The Avestic texts praise often enough the force of certain formulas and prayers. That Zrvan- muttered such sacred texts or sacrificed to the *χ^varənah-* is not surprising. By doing this Zrvan- consecrated the ritual custom propagated by the clergy. Although it sounds illogical that the supreme essence addresses prayers and sacrifices to something, it is comprehensible that the Mōbēdhs wanted to have the miraculous power of both to have been consecrated by the highest god himself. In the Avestic texts Ahura- Mazda- appears occasionally as sacrificing to some Yazata-[2] and the prayer Ahuna- varya- is considered to exist before the creation of the world[3] and to be the sacred weapon of Ahura- Mazda-.

The result of the sacrifice or prayer of Zrvan- is the birth of

[1] 183 ed. Cureton.
[2] *Yašt*, v, 17 ff.; viii, 25 ff.; xv, 2 ff.
[3] *Yasna*, xix, 1 ff.

Ahura-Mazda-, but doubts as to the effect of his action passed the mind of Zrvan- and this sufficed to call into being Anra-manyu-. This explanation of the origin of evil, which the Armenian and Syrian sources present, is interesting, because it certainly comes from Iranian priestly circles. Every doubt and unbelief was considered as dangerous; even the highest deity was subjected to the force of the ritual. Such evil consequences of doubt prove the importance and the necessity of a clergy versed in the holy tradition and Zrvan- appears as the first priest endowed with the sacred knowledge. Šarahstānī gives a more philosophical motive. According to some of his authorities, Zrvan- thought while murmuring his formulas for 9.999 years, that the world was perhaps nothing, and this nihilistic idea created Ahriman, Ōhrmazd being the offspring of Zrvan-'s knowledge of things.

On the whole the Zervanite theology, though possessing as starting point the philosophical conception of absolute time, is imbued with mythology. Zrvan- was apparently considered as bisexual, a notion which is found in many Eastern countries and is in no way special to Iran.[1] The Iranian deities have on the contrary no such character. But the cosmogonies of different nations, with whom the Magians were in contact, knew of such figures, e.g. the Egyptian doctrine of On lets Rē' create the world out of himself.

Sometimes the texts like Eznik,[2] the acts of Ādhurhormizd and Šahrastānī speak of a "mother", but who this figure is, is not clear.[3] There may be some reminiscence of the great mother-goddess, such as we find with Kronos Rhea. The Mesopotamian and Semite systems all know pairs of gods, *syzygies*, like they are mentioned in the Gnostic doctrines. To the tradition giving Zrvan- a female counterpart can be

[1] Cf. Waites, *American Journal of Archæloogy*, 27, 1923, 26 ff.

[2] 113 ff., 132 ff.

[3] R. Reitzenstein, *Die Göttin Psyche*, 78; *Das iranische Erlösungs-mysterium*, 156, 178; Christensen, *Etudes*, 52,$_2$.

approached the passage of Hippolytos [1] calling the two αἰτία of "Zaratas" light and darkness, father and mother.[2] We may further mention the expression "father" used instead of Zurvōn in the Arsakide fragments of Manichæan texts from Tufān. The Mazdaist conception of the two spirits as twins, already exposed in the Gāthā, leads again to the idea of parents of such a pair.[3] The Dēnkart says that Ōhrmazd and Ahriman were two brothers in one womb [4] and the Manichæans polemize against this notion.[5]

Zrvan- is not himself the creator. He invests his son Ōhrmazd with the quality of the *demiurgos*, giving him the *Barəsman-* and thus transmitting to him at the same time the obligation of fulfilling the ritual as the prototype of the Mōbēdh. This act has been cleverly compared to the description of scenes depicting the installation of the Sāsānian rulers by Ōhrmazd who presents the earthly king with the ring of sovereignty.[6] *Xśathra-*, the government, and the priesthood are of divine origin and certainly in the Sāsānian epoch united in the hands of the ruler, who is endowed with the *χᵛarənah-*, the heavenly glory.[7]

VII

Iranian Contact with India

It has been possible to state that the conception of Zrvan- as primal and original deity developed in Iran under Greek

[1] *Refut.*, i, 2, 12, ed. Wendland.

[2] Whether this statement can be ascribed to Diodoros of Eretria and to the pupil of Aristoteles, Aristoxenos, as Hippolytos says, can be left out of the discussion.

[3] *Yasna*, xxx, 3. Zarathuštra speaks of a vision showing him in a dream good and evil in human thoughts, speech and acts in the symbolical shape of a pair of twins. This metaphorical notion was taken later in a literal sense.

[4] Dēnkart, 829, West, *SBE.*, xxxvii, 241 f.

[5] F. W. K. Müller, *Handschriftenreste*, ii, 95.

[6] H. Junker, *Warburg-Vortr.*, i, 1921–22, 171 f.,$_{82}$.

[7] Like the Frataraks (Governors) of Pārs and the Sāsānian Šāhānšāhs the Armenian kings are considered as being of heavenly descent and they rest in the fortified temple of Aramazd; Gelzer, *Zur armenischen Götterlehre*, 103, quoting Agathangelos.

and Chaldæan influences. The Greek elements may have come to the Persian Mages indirectly through the intercourse with the Chaldæan priests. Against the doctrine of Zervanism accepted for a certain period by the Sāsānian court a reaction rose up and this movement succeeded in its efforts to suppress the Zervanite theology. The remains of the religious literature of the Mazdaists show therefore no more or rather scarcely any signs of the Zervanite doctrine. The Avesta apparently never contained suggestions on time as the highest principle, this new teaching having been formed at a period when the corpus of the Avesta was more or less completed.

If the question appears comparatively clear as far as Iran is concerned, it becomes more complicated when we turn to India. The discoveries in north-western India show early connections with the countries on the coasts of the Persian Gulf.[1] Certain modern theories believe that the Ṛgveda came to exist in the regions of eastern Iran bordering on India, not in India proper. At the time when Buddha and Mahāvīra lived, north-western India was in the hands of the Achaemenids. Relations between India and the Western world have never been interrupted since.[2] The problem of foreign influences on India is far from being cleared up,

[1] Cf. the survey offered by W. Wüst, *ZDMG.*, N.F. 6, 259 ff.

[2] Besides the routes leading overland to India which gave Sinope on the Black Sea great importance, there were close connections with southern Arabia, the Red Sea, and Egypt. Alexandria became a centre of the trade with India. On the other hand, the Jātakas speak of trade with Babylon, Bāveru, *Bāveru Jātaka*, no. 339 of the coll. of Jātakas. S. Lévy, *Annuaire de l'Ecole pratique des Hautes Etudes*, 1913–14. For the beginning of the first century A.D. the *Milindapañha*, 359, gives the chief places, in which the Indian sea-faring trade was concerned. Apologos at the mouth of the Tigris was since the first century A.D. the starting point of merchants bound for India (*Periplus maris Erythr.*, 435). At this place, later on called al Ubulla, a temple of a probably Indian deity Zūn is mentioned, cf. J. Marquart and J. J. M. de Groot, *Festschrift f. Ed. Sachau*, 1915, 284 ff. Another temple of this god stood in Zāvulistān and there his symbol was a fish, the crown of the Zūnbīl, the king of Zāvulistān, being ornamented with the head of a fish. This resembles more some reminiscence of Ea than Āditya, the sun-god of Mūltān, whom the Hūṇa considered as Mihr, sanskr. Mihira (J. Marquart and J. J. M. de Groot, loc. cit., 288,$_2$.).

but in the domains of art and science Greece has certainly left certain impressions on the Indian development. It would therefore not be impossible to connect the Kālavāda too with Western ideas, especially as we find it linked up with astrology. This science has been influenced in certain aspects by the Hellenistic world.

On the other hand the Atharvaveda and the mentions in the Upaṇiṣads are older than the period of Hellenistic syncretism. Altogether Indian thought develops on its own lines. But it must not be forgotten that Iranian or Iranized nations were in permanent touch with India. Without entering into views like such entertained by D. B. Spooner on a "Zoroastrian period of Indian history"[1] there are enough signs of the contact between Iranians and Indians.

Leaving apart all similarities between Iranians and Indians going back to the Aryan period, there are a number of religious contaminations arising from the fact that Persians, Sakas, Parthians and Chionites held Indian territory. There are interesting particulars to note from eastern Turkestan, where a Sakian version of the Maitreya- samiti was discovered identifying Maitreya and Ōhrmazd, considered as the sun.[2] The language of this translation has been recognized as being identical with that used on the Kṣatrapa- coins.[3]

In north-western India Iranian Mages have become mixed up with the Brāhmaṇa caste and down to the time of Varāhamihira[4] it was necessary to have certain temples of the sun consecrated by "Magas". These Mages had to be fetched

[1] *JRAS*, 1915, 63 ff.; 405 ff., cf. V. A. Smith, *JRAS.*, 1915, 800 ff.; Keith, ibid., 1916, 138 ff.; Thomas, ibid., 362 ff.; s. Coomaraswamy, *Gesch. der indischen u. indones. Kunst*, transl. by H. Goetz, 15; 23 ff.

[2] v. 166, Leumann, *Maitreya-samiti*, Strassburg, 1919, i, 91.

[3] Lüders, *Berl. Sitzungsber.*, 1913, 405 f.; 1919, 734 ff.; cf. Reichelt, *Indogerm. Jahrb.*, i, 1913, 20 f.; Sir Aurel Stein, *Serindia*, iii, 1443 ff. Reichelt, *Stand u. Aufg. der Sprachwiss.*, 286; *Grdr. d. indog. Sprach-Altertumskunde*, ii, 4, 2, 28 f.; E. Abegg, *Der Messiasglaube*, 193.

[4] *Bṛhatsaṃhitā*, lx, 19.

from Šākadvīpa. The Mages were known as the Šākadvīpīya-Brāhmaṇas.[1]

The contact between Iranians and Buddhists in north-western India seems to have been important for the development of the figure of Maitreya in the Mahāyāṇa, the conception of Maitreya being probably influenced by that of the Saošyant-.[2] It is a notable fact that the Hindoos seem to have been less in touch with Iranian elements than the Buddhists. The Jainas again were on good terms with the Sakas, while the Hephtalite Hūṇa was considered as an opponent of their teachings.[3]

VIII

Conclusions

The Zervanite theology of Iran, once the official system of the Persian empire, and the Indian Kālavāda have in common the acceptation of time as the supreme principle and the connection of this notion with the idea of fate. This leads to astrological considerations, some of which are in contrast with the Indian conception of Karman, as they

[1] Bhandarkar, *Vaiṣṇavism*, 153 ff.; Grierson, *The Languages of India*, 45, Wilson, *Vishnu Purâna*, I. lxiii; v, 381 ff.; Winternitz, *Gesch. d. ind. Lit.* i, 474; iii, 362; Abegg, *Messiasglaube*, 243.

[2] Grünwedel, *Buddhist. Kunst*, 2nd ed., 143; Garbe, *Indien u. das Christentum*, 174 f.; Krause, *Ju-Tao-Fo*, 409 f.; Waldschmidt, *Gandhāra*, 12 f.; Abegg, *Messiasglaube*, 243 f.

[3] v. Glasenapp, *Der Jainismus*, 43 f.; J. Charpentier, *The Cambridge History of India*, i, 167 f. It is necessary to distinguish between the Kūšān, the Chionites or White Huns and the Hephtalites. The Kūšān formed a confederation extending to Bactria, Xotān and north-western India and led by Iranian Sakas. During the Sāsānian period, Kūšān-šāh was merely the title of the Persian Governor-General of Ḫorāsān. The Chionites, the Ḫyaona- of the Avesta, were a Hun tribe. Under pressure from the Hephtalites whose sedentary life in a fertile country with a large capital is described by Prokopius, *de bello Pers.*, i, 3, some Chionites moved to India, where they established the Hūṇa kingdom or kingdoms. In the sixth century the Hephtalites were crushed by Xosran I of Persia co-operating with the Xāqān of the Turks.

subject the human destiny to a necessity lying outside the sphere of man's action and mind.

The similarities of Zervanism and Kālavāda end here. The Indian system seems to have been a well-founded philosophical doctrine, which proceeded with arguments and a scientific method, just like other schools of philosophy. It is only outside of this philosophical doctrine in the field of religion that we meet elements of mythology.

On the other hand Zervanism operates with a philosophical conception, but the whole teaching is purely religious in character. Legends, myths, and symbols are used to explain the unsolved mysteries of existence and of its origins. The teachings of the Zervanite divines are closely allied to those in use in hither Asia, in Babylonia, Mesopotamia and Anatolia as well as in Iran proper. The idea of absolute time is combined with astrological considerations.

There seems to exist no contact between the Iranian Zervanites and the Kālavāda. The Indian development can be fully understood from Indian premises alone.

One point remains however dubious. Did India discover by herself the notion of absolute time or did it come to her perhaps through Iran from Greece? The question cannot be separated from that of the origin of Indian astrology. For Iran it seems clear that Zervanism was a result of the Hellenistic current, forming a new world out of Eastern and Greek elements, a movement which need not be limited to the period of Alexander, but which goes back to the days when the Achæmenian empire came into touch with the Western world.

The Kaliyuga Era of B.C.3102

J.F. Fleet

THE Kaliyuga era is a Hindū reckoning beginning at mean sunrise, 6.0 a.m., Lankā or Ujjain time, on Friday, 18 February, B.C. 3102.[1] Its 5013th year will have begun just before the time when these pages come into the hands of readers of this Journal.

In consequence of the seeming antiquity of this reckoning, there has been manifested recently in certain quarters a desire to demonstrate that it is a real historical era, founded in Vedic times and actually in use from B.C. 3102. But any such attempt ignores the fact that the reckoning is an invented one, devised by the Hindū astronomers for the purposes of their calculations some thirty-five centuries after that date. And it ignores, not a theory of the present writer or of anyone else, but a position which was clearly established as soon as the Hindū astronomy had been well explored, and was fully recognized at least half a century ago.[2] There is, however, this to be said; that the statements of the fact are mostly confined to writings which are not often consulted or even seen now, except by specialists who are concerned more with the study of the Hindū astronomy than with that of the calendar and the eras and other reckonings.

[1] It may be useful to note that in terms of the Julian Period beginning with Monday, 1 January, B.C. 4713, and regarded as having its days running for Indian purposes from sunrise (instead of the preceding midnight), the first civil day of the Kaliyuga era, the Friday mentioned above, is the day 588,467 current, or, as it is taken for purposes of calculation, the day 588,466 elapsed.

[2] As, for instance, by Whitney in his notes below E. Burgess's translation of the *Sūrya-Siddhānta*, published in the Journal of the American Oriental Society, vol. 6 (1860), pp. 145–498.

In these circumstances, the present article is given in order to bring the matter into an easily accessible publication, and to show, without entering into the complex question of the antiquity of the Vēdas and the various topics connected therewith, the real nature of this reckoning and the circumstances in which it was established. Also, taking the matter farther, to show the leading part which the reckoning has in the Hindū system of cosmical periods, and the extent of its connexion with historical chronology, legendary and real.

The Kaliyuga or Kali age is the Hindū Iron Age. It is the last and worst in each cycle of the Four Ages in the Hindū system of cosmical periods. Nevertheless, it is intrinsically the most important item in the whole scheme, since, as will be seen, the beginning of it is the pivot of the entire system.

Each cycle of the Four Ages, called sometimes Chaturyuga, 'the four ages', sometimes Mahāyuga, 'the great age', sometimes simply Yuga, 'the age', has the duration of 4,320,000 solar years or, as some of the books explain, years of men; that is, years beginning at the Hindū nominal vernal equinox, and measuring 12 minutes and a few seconds more than 365¼ days. According to the view now prevailing, which is traced back to the time of Brahmagupta (wrote A.D. 628), each Chaturyuga is divided in the descending scale of 4, 3, 2, and 1 tenths, into the Kṛita or Golden Age of 1,728,000 years, the Trētā or Silver Age of 1,296,000 years, the Dvāpara or Brazen Age of 864,000 years, and the Kali or Iron Age of 432,000 years.[1] Each age opens with a 'dawn' and

[1] As regards the method of stating the lengths of the ages, Brahmagupta (ed. Sudhakara Dvivedi, p. 3, verses 7, 8) first gives the length of the Chaturyuga, 4,320,000 years, which, he says, comprises "the four, the Kṛita and the others, with dawns and twilights." He then takes

closes with a 'twilight', each of which measures one-twelfth of the whole period assigned to the age, and is included in that period; so that what we may call the full daytime of the age lasts for ten-twelfths of that period:[1] and it is from this point of view that the Kali age is sometimes mentioned as measuring 360,000 years.[2] The divisions of the Chaturyuga on these lines are shown on p. 483 below. And the table shows also the constitution of the cycle on the principle of 'divine years', the basis of which is the idea that one year of men is a day of the gods, and 360 such days are one divine year.

the tenth part of that, viz. 432,000 years: and he multiplies this latter figure by 4, 3, 2, and 1.

A different course is taken by Lalla, an early exponent of Āryabhaṭa, who may or may not have come before Brahmagupta. He differs from his master regarding the divisions of the Chaturyuga (for Āryabhaṭa's arrangement of this matter see p. 486 below), and agrees with Brahmagupta, but fixes the lengths of them by other means. He takes the orbit of the moon, 216,000 *yōjanas*, as stated by Āryabhaṭa on the assumption that the moon is at such a distance from the earth that one minute of arc along her orbit round the earth measures ten *yōjanas*; and he gets the figures for the ages by multiplying this figure by 8, 6, 4, and 2: see his *Śishyadhīvṛiddhida*, ed. Sudhakara Dvivedi, p. 3, verse 14, with p. 27 f., verses 2, 3 (there are rather serious mistakes in some of the explanatory figures interpolated by the editor here).

[1] I follow Whitney and other scholars in using the terms 'dawn' and 'twilight'. The original texts sometimes discriminate by presenting *saṁdhyā* where the term 'dawn' has been adopted, and *saṁdhyāṁśa* where 'twilight' is used. But in other places they use the term *saṁdhyā* in both senses, and also another term, *saṁdhi*, which, however, is perhaps used more specially in connexion with the Manvantaras, to which we shall come next.

The term *saṁdhyā*, lit. 'a holding together, union, junction', occurs freely in literature in the sense of both the morning and the evening twilight. *Saṁdhyāṁśa*, lit. 'a portion of *saṁdhyā*', seems to have been selected simply in order to obtain, for the purpose of the ages, *saṁdhyā* in the sense of the opening 'twilight', and another term for the closing one. *Saṁdhi*, lit. 'junction, connexion, place or point of contact', appears also to occur in the sense of 'twilight', both of the morning and of the evening. But the *saṁdhis* are not parts of the Manvantaras, as the *saṁdhyās* and *saṁdhyāṁśas* are of the Ages; and the idea seems to be more that of 'a junction-period', and to be better taken in this way: see, further, p. 482 below, and note 2.

[2] For instance, in the *Vishṇu-Purāṇa*, 4. 24. 41: trans., vol. 4, p. 236.

Such are the divisions of the Yuga, Mahāyuga, or Chaturyuga. In the other direction, 71 Chaturyugas constitute a Manvantara, 'the period of a Manu or patriarch': and during each Manvantara the Four Ages run on, in cycle after cycle, without any break; the 'twilight' of one age gliding straight into the 'dawn' of its successor, and the events proper to each age beginning at once to repeat themselves. There are 14 Manvantaras, each presided over by a different Manu, who is the progenitor and protector of the human race of his period: and the first of them is preceded by a 'junction-period',[1] of the same length with a Kṛita age, which seems to be the time that was originally allotted for the process of creation, before the *Sūrya-Siddhānta* found reasons for greatly lengthening that time; and each of them is followed by a 'junction-period' of the same duration, which appears to be a time of abeyance of existence.[2]

The 14 Manvantaras, with the 15 'junction-periods', constitute a Kalpa or aeon, which thus measures 1000 Chaturyugas or 10,000 Kaliyugas. The Kalpa is the daytime of a day of the god Brahman; and his night is of the same length.[3] At the end of the daytime of a day of Brahman everything is destroyed: during his night a state of chaos prevails: and then creation is renewed by him. This process of creation and destruction alternates during the whole life of Brahman,

[1] The term is *saṁdhi*, regarding which see note 1 on p. 481 above.

[2] The *Sūrya-Siddhānta*, 1. 18, says that the *saṁdhi* at the end of a Manvantara is a *jalaplava*, 'a deluge'. The *Vāyu-Purāṇa*, 61. 136, says that there is a *saṁhāra*, 'a suppression, destruction', at the end of a Manvantara, and a *saṁbhava*, 'a birth, production', at the end of the *saṁhāra*.

[3] The astronomers had no need to go beyond the Kalpa: and neither does Āryabhaṭa nor does Brahmagupta seem to have done so. The *Sūrya-Siddhānta*, 1. 21, however, found it worth while to add that the extreme age of Brahman is 100 (*years*) of such days-and-nights, and that half of his life has passed.

The divisions of the Chaturyuga

THE AGES	YEARS OF MEN		DIVINE YEARS	
Krita:—				
Dawn	144,000		400	
Daytime	1,440,000		4,000	
Twilight	144,000		400	
		1,728,000		4,800
Trētā:—				
Dawn	108,000		300	
Daytime	1,080,000		3,000	
Twilight	108,000		300	
		1,296,000		3,600
Dvāpara:—				
Dawn	72,000		200	
Daytime	720,000		2,000	
Twilight	72,000		200	
		864,000		2,400
Kali:—				
Dawn	36,000		100	
Daytime	360,000		1,000	
Twilight	36,000		100	
		432,000		1,200
Yuga, Mahāyuga, or Chaturyuga		4,320,000		12,000

which is known as the Mahākalpa and lasts for 100 years, each composed of 360 such days and nights. Then everything is overwhelmed by a final destruction and resolution into ultimate sources, and apparently remains so until another Brahman comes spontaneously into existence.[1]

[1] This part of the matter is obscure. But it was recognized at an early period (see, e.g., Āryabhaṭa's Kālakriyā chapter, verse 11) that, though time is measured by the courses of the planets (including in this term the sun and the moon), time itself has no beginning and no end: and it was consequently seen that even the life of Brahman, as specified above, would not cover the duration of time. The idea seems to be that even Brahman himself dies, and is followed by a new Brahman; not that he sinks into quiescence and becomes revivified. Thus Bhāskarāchārya, writing in A.D. 1150, says that at the end of the 100 years, which period, he tells us, was named Mahākalpa by early people, there comes "another Brahman": on the point as to how many such beings there may have been, he adds:—"Since this same time had no beginning, I know not

It may be added that we are held to be now in the Kaliyuga or Iron Age of the twenty-eighth Chaturyuga or cycle of the Four Ages in the seventh Manvantara in the first Kalpa in the second half of the life of Brahman.[1] But we are still in only the 'dawn' of the Kali age: this dawn lasts for 36,000 years; and the daytime of the age, with all its depraved characteristics fully developed, will not begin until A.D. 32,899.

The general idea of the Ages, with their names, and with a graduated deterioration of religion and morality

how many Brahmans have passed away:" see his *Siddhāntaśirōmaṇi*, and his own commentary on it, edited by Bapu Deva Sastri, p. 10, verse 25.

[1] See, e.g., the *Sūrya-Siddhānta*, ed. FitzEdward Hall and Bapu Deva Sastri, 1. 21, 22; where we are further told that the Manu of the current Manvantara is Vaivasvata. See also the *Vishṇu-Purāṇa*, 1. 3. 26, 27, which adds that the present Kalpa is named Vārāha, and the last preceding one was Pādma: in verse 4 it uses the terms Para and Parārdha to denote respectively the whole and the half of the life of Brahman.

There has been, however, a difference of opinion on this point. Bhāskarāchārya says in his *Siddhāntaśirōmaṇi*, ed. cit., p. 11, verses 26, 27, and his own commentary thereon:—"How much of the life of the existing Brahman has gone, I know not; some say half of it; others, eight and a half years. Let the tradition be: there is no use for it either way, because the planets are to be calculated only according to the elapsed time of his current day. Since they are created at the beginning of such a day and are destroyed at the end of it, it is proper to examine their courses only for the time during which they exist: those persons who, on the other hand, consider their courses for times when they were not, — I give my compliments to those great men!"

The *Sūrya-Siddhānta*, 1. 21, teaches that half of the life of Brahman has elapsed, and that we are now in the first Kalpa of the second half. The other view appears to be taught by some followers of the Brāhma-Siddhānta.

The Lashkar Pañchāṅg, printed at Gwalior, says in the introductory passages of its issue for the Vikrama year 1966 and the Śaka year 1831, expired, = A.D. 1909–10, that the view that half of the life of Brahman has passed is the Saura-mata, the opinion of those who follow the *Sūrya-Siddhānta* (see just above), and the other view is the Brāhma-mata. It adds that in the first day of the remainder of his life there had elapsed, up to the year of its issue, 1,972,949,010 years, or, in terms of the time of Brahman, 13½ *ghaṭikās*, 12 *palas*, 3 *vipalas*; that is, 5 hrs. 28 min. 49·2 sec. Some other almanacs make similar statements: but it is enough to cite this one as an example.

and shortening of human life,—with also some conception of a great period known as the Kalpa or aeon, which is mentioned in the inscriptions of Aśōka (B.C. 264–227),—seems to have been well established in India before the astronomical period.[1] But we cannot refer to that early time any passage assigning a date to the beginning of any of the Ages, or even allotting to them the specific lengths, whether in solar years of men or in divine years;

[1] In rock-edict 4 we have:—"And the sons of the king Dēvānaṁpiya-Piyadassi, and the sons' sons and their sons, will cause this observance of *dhamma* to increase throughout the aeon." The Kālsī text, line 12, has *āva kapaṁ*, = *yāvat=kalpam*: and the Shāhbāzgarhī and Mansehrā texts yield the same expression. The Girnār text, line 9, has *āva saṁvaṭa-kapā*, = *yāvat=saṁvarta-kalpāt*, "until the aeon of destruction"; which indicates a recognition of an ensuing aeon of non-existence, following the aeon of existence in which we now are.

In rock-edict 5, again, Aśōka speaks of "my sons and sons' sons, and my offspring after that throughout the aeon." Here, also, we have *āva kapaṁ* in the Kālsī text, line 14, and in the Shāhbāzgarhī and Mansehra texts; while the Girnār text, line 2, has again *āva saṁvaṭa-kapā*.

The Dhauli text has in edict 5, line 21, *āva kapaṁ*, but in edict 4, line 17, *ā-kapaṁ*, which may be of course a mistake for *āva kapaṁ*, but also may represent quite regularly *ā-kalpam*. In the Jaugada text both the expressions are lost.

Early epigraphic references to the system of cosmical periods are rare: but two instances may be cited. The Junāgaḍh inscription of Rudradāman, dated in A.D. 150, says (*Epi. Ind.*, vol. 8, p. 42, text line 6–7) that the dam of the great lake Sudarśana was burst by the effects of a great fall of rain, which swelled to excess the rivers that filled the lake and was accompanied by "a wind of a most tremendous fury befitting the end of the Yugas." And the Gaṅgdhār inscription of A.D. 423 (*Gupta Inscriptions*, p. 74, text line 7–8), describes the king Viśvavarman as "surpassing in brilliance the most unendurable *saṁvartaka*-fire". These allusions may be explained from the Mahābhārata, 3, Vanap., § 188. 12869–90. At the end of the 1000 Yugas (which make the daytime of a day of the Creator) there will appear seven blazing suns, which will dry up all the waters in the rivers and the oceans. They will be followed by the *saṁvartaka*-fire, 'the fire of destruction', accompanied by a great wind, which will invade the earth, already dried up by the suns, and will burn up everything that is left, penetrating even through the earth down to the nether regions. This fire will be quenched eventually by a tremendous fall of rain, lasting for twelve years, from vast masses of clouds driven by the same terrible wind, which will flood the whole surface of the earth. Then, when the clouds are exhausted, the Self-existent One will drink up that terrible wind, and will go to sleep.

mentioned above.[1] And as regards their lengths, taking the earliest evidence to which a definite period can be assigned, we find a different scheme of the system of cosmical periods presented to us by Āryabhaṭa, who wrote in or soon after A.D. 499. He had the period of the Chaturyuga, called by him simply Yuga, with the same duration of 4,320,000 solar years of men. But he took the Manvantara as consisting of 72 (instead of 71) Yugas, = Chaturyugas; so that his Kalpa, consisting similarly of 14 Manvantaras, but without the fifteen 'junction-periods', measured 1008 (instead of 1000) Yugas, = Chaturyugas. And, in the other direction, he has not mentioned or indicated the graduated division of the Yuga into the four ages, but has divided it into four equal parts, called by him Yugapādas, 'quarter Yugas', each consisting of 1,080,000 years. Further, he has not assigned names to the Yugapādas, but has given us his date by saying that he was 23 years old when there had expired, not 3600 years of the Kali age, but three Yugapādas and 3600 years of the fourth Yugapāda.[2]

To the above account we must add that Brahmagupta mentions still another scheme of the Kalpa, according to which it was composed of 14 Manvantaras, each of 71 Chaturyugas, without the fifteen 'junction-periods'; so that it measured 994 Chaturyugas.[3] This represents

[1] Detailed remarks on this point must be held over: but the following may be said. The original scheme of the Yuga seems to have been on the decimal system of notation; a cycle of 10,000 years (*Atharvavêda*, 8, 2. 21), which was then divided, when the idea of the Ages with fixed decreasing periods arose, into four parts of 4000, 3000, 2000, and 1000 years. It was subsequently recast on duodecimal lines; by adding 2000 years, which were divided in the same proportion into 800, 600, 400, and 200, and were attached to the Ages as their 'dawns' and 'twilights', thus making 4800, 3600, 2400, and 1200, = 12,000 years. This enabled the primitive Yuga to be adapted to the astronomical Yuga of 4,320,000 years, by multiplying the 12,000 years and the divisions thereof by 360.

[2] See page 111 above.

[3] Ed. cit., p. 4, verse 11.

THE KALIYUGA ERA OF B.C. 3102

The three systems of cosmical periods

Āryabhaṭa's system		Intermediate system		The system of Brahmagupta and the present day	
1st Yugapāda . . .	1,080,000	*The divisions of the Yuga in this system are not known*		Kṛita	1,728,000
2nd ,, . . .	1,080,000			Trētā	1,296,000
3rd ,, . . .	1,080,000			Dvāpara	864,000
4th ,, . . .	1,080,000			Kali	432,000
Yuga	4,320,000	Yuga	4,320,000	Yuga	4,320,000
×	72	×	71	×	71
Manvantara	311,040,000	Manvantara	306,720,000	Manvantara	306,720,000
×	14	×	14	×	14
					4,294,080,000
				15 'junction-periods' each equal to one Kṛita . . . . +	25,920,000
Kalpa	4,354,560,000	Kalpa	4,294,080,000	Kalpa	4,320,000,000
	Yuga × 1008		Yuga × 994		Yuga × 1000

an intermediate stage in the development of the scheme favoured by him from that presented to us by Āryabhaṭa.

The divisions of the Chaturyuga according to this intermediate system are not known. In other respects, the table on p. 487 above presents a comparison of the three schemes.

The settlement of the Hindū system of cosmical periods, first in the form in which it is given by Āryabhāṭa, and finally in the form which it now has, is due to a combination of astronomical necessities with the pre-existing popular ideas. And it was in these circumstances that there were developed the features which distinguish the Hindū from the Greek and Roman systems. The Ages of the Greeks and the Romans had no specific duration: their Golden, Silver, and Brazen Ages included the whole period from "the beginning of years" to the commencement of the Iron Age, and were past and done with for ever; and their Iron Age was to last until the end of everything. But the Hindū Ages are of definite lengths, and recur again and again; and the cycle of them constitutes a unit in the measurement of time, with the result that, by means of the initial point assigned to the current Kali age, the beginning of any other age in the life of Brahman, or any other point in his existence, can be determined. The circumstances in which this distinguishing feature was introduced were as follows:—

At some time not long before A.D. 400 the Hindūs received the principles of the Greek astronomy and astrology, and developed their own application of them.[1] Amongst other details, they adopted the idea of a solar year beginning at the vernal equinox as marked for them

[1] There is, I believe, now a tendency to refer this receipt of the Greek sciences to a somewhat earlier period. As far as the matter is clear to me, it cannot be placed before about A.D. 225–50, and A.D. 350 seems more probable.

by the entrance of the sun into their constellation and sign Mēsha, the ram, which answers to our Aries, though it does not coincide with our constellation Aries, and much less with our present astronomical sign Aries.[1] And, as that equinox was then occurring in their synodic lunar month Chaitra, they adopted also a lunar year beginning with Chaitra śukla 1, the first day of the bright fortnight of Chaitra, and bound it to that solar year by the system of lunisolar cycles and the intercalation of lunar months.

Like other Oriental peoples, and like the Greeks themselves and the Romans, the Hindūs had had the system of lunisolar cycles and intercalation from a great antiquity. But, so far, all that they had been concerned with was the harmonizing of the courses of the sun and the moon, and the keeping of a lunar reckoning as closely as possible in agreement with the natural seasons, by those means. Now, however, under the influence of the Greek sciences, they had to compute, both for astronomical and for astrological purposes, the courses of the planets as well as those of the sun and the moon. And to this end they required bases for calculation going far beyond any ordinary lunisolar cycles.

In the first place, for laying down their elements in integers and for introducing refinements of them in the

[1] The first point of Mēsha is the fixed initial point of the Hindū sphere: it is either at, or 10′ on the east of, the star ζ Piscium, which is about 10° west of the beginning of our constellation Aries. Our "first point of Aries", i.e. of our sign Aries, which gives the tropical equinox, is now about 18° farther to the west from ζ Piscium.

The Hindū mean vernal equinox is the time when their mean sun comes to the first point of Mēsha. According to the Hindū bases, this was, in B.C. 3102, on 18 February: now, as a result partly of the Hindūs maintaining the sidereal solar year and disregarding the precession of the equinoxes in connexion with their calendar, partly of our introduction of New Style in A.D. 1752, it comes on 13 or 14 April. The Hindū true vernal equinox occurs two days and a few hours earlier, when their true sun comes to the first point of Mēsha.

same convenient form, they required a large calculative period of the kind called by the Greeks an *exeligmos* and by the Romans an *annus magnus* or *mundanus*;[1] that is, a period of evolution and revolution, in the course of which any given order of things runs through an appointed course and is completed by returning to the state from which it started. And they adopted an *exeligmos* beginning and ending with a conjunction of the sun, the moon, and the planets, at the first point of Mēsha; which conjunction of course involved a new-moon and the vernal equinox.[2]

The Hindū astronomers themselves may have determined the precise length of time which they assigned to their *exeligmos*, and the all-important date to which (as will be shown) they referred the last occurrence of this conjunction before their own time. But the suggestion for the particular nature of the conjunction seems plainly

[1] As I have said on a recent occasion, for the term *exeligmos*, which is frequently a very convenient one to use, we are indebted to Dr. Burgess (this Journal, 1893, 721), who brought it to the front from Gemīnos and Ptolemy in the course of his instructive article entitled "Notes on Hindu Astronomy and the History of our Knowledge of it."

[2] This conjunction is usually indicated, perhaps not too clearly, by statements such as that made by Āryabhaṭa in his Kālakriyā chapter, verse 11:—"The Yuga (i.e. the Mahāyuga or Chaturyuga), the year, the month, and the day began all together at the beginning of the bright fortnight of Chaitra;" which is to be read in connexion with the statement in the Daśagītikasūtra, verse 2 (a part of his work, whether he himself composed it or not: see p. 115 above), that the revolutions of the sun, etc., laid down for the Yuga in that verse and the preceding one, are counted from (the first point of) Mēsha and from sunrise on a Wednesday at Laṅkā.

But it is defined in very plain terms in the *Sūrya-Siddhānta*, 1. 57. This work purports to have been revealed by the Sun to the great Asura Maya when the Kṛita age was being superseded by the Trētā: and we are here told that:—"At this same end of the Kṛita age, all the planets, by mean motion, but excepting (*their*) nodes and apsides, have come to equality (conjunction) at the beginning of Mēsha." The term 'planets' here includes, as usual, the sun and the moon. The sequel will show that the conjunction thus referred to the end of the Kṛita age, that is, to the beginning of the Trētā, comes also at the beginning of the Kaliyuga.

to have been obtained from Greek or other sources: a passage found by Professor Jacobi in the *De Die Natali* of Censorinus (A.D. 238) tells us thus:—"There is also the year, which Aristotle [B.C. 384–322] calls *maximus* rather than *magnus*, which the orbs of the sun, the moon, and the five wandering stars bring to an end when they are all together carried back to that same sign in which they once were at one and the same time; and of which year the midwinter is a cataclysm which our people call a deluge, and the summer is a conflagration which is a burning of the world: for in these alternate times the world is perceived to be turned now into fire, now into water."[1]

Whatever may be the origin of the idea of this conjunction, the Hindū astronomers adopted it. And, as regards one of the details of their system, it was necessary, in view of the number of the heavenly bodies concerned, that the *exeligmos* to be used in connexion with it should be a very long one, to admit of assigning a sufficiently great number of revolutions to the sun, the moon, and the planets, to bring them all together again at the end of it, and at the same time to state those numbers as integers without the inconvenience of fractions. Now, the Hindūs have sometimes used the Kalpa as an *exeligmos*. But that was laid out and adopted expressly with the same object of avoiding the introduction of fractions in making refinements in the elements.[2] The more general *exeligmos* has

[1] The passage has been given by Professor Jacobi in the Acts of the Tenth Oriental Congress, Geneva, 1894, part 1 (1897), p. 106, in his article "Contributions to our Knowledge of Indian Chronology." See also this Journal, 1893. 721, note 2, where it has been given by Dr. Burgess, to whom it was communicated by Professor Jacobi. It goes on to say:—"Aristarchus [between B.C. 280 and 264] estimated this year at 2484 successive years; Aretes Dyrrachinus at 5552; Heraclitus [about B.C. 513] and Linus at 10,800; Dion at 10,884; Orpheus at 120,000; Cassandrus at 360,000. But others have expressed the opinion that it is infinite and cannot ever complete itself."

[2] An example may be given, to make the meaning clear. For the planet Jupiter, Āryabhaṭa had 364.224 revolutions in the Yuga, giving

been the Yuga, Mahāyuga, or Chaturyuga of 4,320,000 years. And this was the earlier *exeligmos* of the two, and was nominally the *exeligmos* of Āryabhaṭa. But, except in the case of the apsis and node of the moon, all the figures for the principal elements, taken for that period by him and his successors, are exactly divisible by four. And it is recognizable from this that the true original Hindū *exeligmos* was the quarter of that period, namely, Āryabhaṭa's Yugapāda of 1,080,000 years, with the conjunction recurring at the beginning of each Yugapāda.[1]

a certain rate of motion and a certain length in years for each revolution. Brahmagupta found reasons for making the motion of the planet somewhat quicker and the period of its revolution somewhat less; and he did this by increasing the number of revolutions in a given time. With the Yuga as the *exeligmos*, he would have had to state the number of revolutions, taken by him, as $364,226\frac{91}{200}$: but, using the Kalpa, he was able to put it as 364,226,455.

Further, the *Sūrya-Siddhanta*, while using the Yuga as its *exeligmos* for all ordinary purposes, had to adopt the Kalpa for stating (1. 41-44) the revolutions of the apsis of the sun and the apsides and nodes of the five planets; because the numbers are too small to be stated as integers for the Yuga.

[1] Before the publication of Kern's edition of the *Āryabhaṭīya* in 1874, Āryabhaṭa was known only from quotations from him in other Hindū works; and even in those quotations he was confused with the author of the later work, the *Arya-Siddhānta*: the real Āryabhaṭa, in fact, was so little known that Colebrooke thought it possible (see *Essays*, 2. 429) that he might be placed even before B.C. 58. Whitney, however, recognized and illustrated that the Yugapāda might be substituted for the Yuga for purposes of calculation: see the *Sūrya-Siddhānta*, trans., p. 160 f.

[2] The reason for the precise length of the Hindū *exeligmos* in either form, Yuga or Yugapāda, does not come within the scope of this article: it has been much debated, but is still a matter of conjecture, and seems likely to remain such. In respect, however, of any suggestion that it was selected to suit some particular rate of precession of the equinoxes (see, e.g., Cunningham, *Indian Eras*, p. 4), it may be observed, in the first place, that (as may be seen, loc. cit.) more rates of precession than one can be manipulated, according as we deal with any fractions that are involved, in such a manner as to yield the period of either a Yuga or a Yugapāda; and in the second place, that it is tolerably certain that the Hindūs did not pay any attention to precession, even if they knew exactly what it is, until about the tenth century, and that, when they did take the matter up, they fixed their estimates of the annual rate of

As regards another detail, the Hindū astronomers found that they required also a specific date to which they could refer the conjunction or some fairly recent recurrence of it, so that they could state the positions of the heavenly bodies for any desired times. And, applying themselves to this detail, and working, let us say (simply taking a convenient year at any time more or less near the real period) in A.D. 399, they found, whether by calculations of their own or from some extraneous hint,[1] that the said conjunction had occurred exactly 35 centuries previously. There was not, indeed, really such a conjunction, or even a close approximation to it: nor, apparently, is it even

precession at 54″ and 1′ simply because these rates gave periods which go without fractions into the period of their *exeligmoi*. And it may be noted that the Greeks had an *exeligmos* of 10,800 years (see note 1 on p. 491 above); also, that the Chaldaeans had a period of 432,000 years, extending from Creation to the Flood, which was supposed to represent the reigns of ten kings, but seems more likely to be of the nature of an *exeligmos*: the Hindū *exeligmos*, either the shorter one, the Yugapāda, or the longer one, the Yuga, may have been an adaptation by extension of one or the other of those two periods.

There can, however, be little doubt, that, as was intimated by Dr. Burgess in this Journal, 1893. 722, it is a natural development of the system of sexagesimal subdivision, which is ancient enough: its ultimate origin lies in such facts as that there are 10,800′ in 180°, and 21,600′ in the whole circle, and also, by the Hindū divisions of time, 21,600 *nāḍis* or *ghaṭīs*, periods of 24 minutes, in 360 days. And, if the subject should ever be taken up again, attention might be paid to the manner in which Lalla obtained the figures for the subdivisions of the Yuga from 216,000 as the number of *yōjanas* in the orbit of the moon (see note 1 on p. 480 above): this item was used also to determine the circumference of space, in the sense of the visible universe lit up by the sun, and to deduce from that the orbits and distances of the sun, the planets, and the *nakshatras*. That the moon was an important factor in the determination of the period seems also to be indicated by the point that the numbers of the revolutions of her apsis and node are integers only for the Yuga: divided by four, they give fractions, three-quarters and one-half.

[1] The Kaliyuga era was known to the Arabian astronomers as the Era of the Deluge: see Albērūnī's *Chronology of Ancient Nations*, trans. Sachau, p. 29; also the *Āīn i Akbarī*, trans. Jarrett, vol. 2, p. 22. It is not impossible that some tradition about the Flood, obtained from the Greeks or the Romans, may have indicated to the Hindūs the period in which, in a general way, they should look for the date of the great conjunction.

the case that the sun was actually at the first point of Mēsha at the moment arrived at.[1] But there was an approach to such a conjunction, which was turned into an actual conjunction by using the mean instead of the true positions of the sun, the moon, and the planets, and by taking liberties with some of them.[2] And, partly from the reckoning which has come down to us, partly from the statements of details in the astronomical books, we know that the moment assigned to the assumed conjunction was according to one school mean sunrise at Laṅkā–Ujjain on Friday, 18 February, B.C. 3102, and according to another school the preceding midnight.[3]

[1] It cannot be said safely, off-hand, as has been said, that no such conjunction ever did or ever will occur: as Albērūnī observed (see his *Chronology of Ancient Nations*, trans. Sachau, p. 30), it must have occurred and must occur again, if only our solar system lasts long enough. This, however, is a question which must be left to the astronomers in consultation with the geologists.

[2] Whitney gave the mean places of the planets for mean sunrise at Ujjain on Friday, 18 February, B.C. 3102, in accordance with three of the Hindū books: of those three, the *Ārya-Siddhānta* gives the nearest approach to a conjunction; and according to it the sun, the moon, Mars, and Saturn were exactly at the first point of Mēsha; Venus and Jupiter were 2° 52′ 48″ west of that point; and Mercury was 8° 38′ 24″ west of it: see *Sūrya-Siddhānta*, trans., p. 425. For the true positions of the planets for the preceding midnight at Ujjain, furnished to Whitney by Professor Winlock, see ibid., p. 162.

Two items may be added, as worked by Schram's *Kalendariographische und Chronologische Tafeln* (1908). The true new-moon in February, B.C. 3102, was at about 7.13 a.m., for Ujjain, on Thursday, the 17th. The true vernal equinox of B.C. 3102 was at about 1.25 p.m., for Ujjain, on Sunday, 17 April.

[3] Āryabhaṭa belonged to the sunrise school: the midnight school is represented by the original *Sūrya-Siddhānta*, which existed before the time of Varāhamihira (died A.D. 587), and by the present work of the same name, which dates from probably about A.D. 1000. Brahmagupta also placed the conjunction at sunrise: but his position in respect of its connexion with the Kaliyuga seems to have been an anomalous one which cannot be conveniently examined here.

Colebrooke said (*Essays*, 2, 384):—"A third school began the astronomical day, as well as the great period, at noon." But that is a mistake. In the place alluded to by him, Bhaṭṭōtpala dealt with a different matter, and mentioned four views as to the moment—sunset, midnight, sunrise, and noon—at which a planet becomes the lord of

This difference, however, is only a technical point of detail for purposes of calculation: all the Hindū books agree that the civil day runs from sunrise: and for all purposes of chronology the period beginning with this conjunction runs from the sunrise on the Friday.

For the rest, the case is as follows. To suit the pre-existing notions about the Ages, which involved the understanding that the Kali age had already begun, the Hindūs took the moment of the conjunction, fixed in B.C. 3102 as stated above, as the initial point, not of the Yuga, but of the last Yugapāda or quarter Yuga, which accordingly became the Kali age. Further effect was given to the same notions by redistributing the period of 4,320,000 years into the unequal Kṛita, Trētā, Dvāpara, and Kali ages, in the proportion of 4, 3, 2, and 1 tenths. And the result was the peculiar position which marks the beginning of the Kali age as the pivot of the whole system of Hindū cosmical periods: namely, the conjunction taken as the starting-point of the entire Yuga now recurs, as originally, at the beginning of each Kali age; in a Dvāpara age, it does not occur at all; in a Trētā age, it occurs twice, at the beginning and at 216,000 years before the end;[1] and in a Kṛita age, in spite of that age being always the first and the best of the ages, it occurs, not at its beginning, but after the lapse of 648,000 years from its beginning.

We may add, however, that though the Kṛita age was thus at first left without any particular occurrence to mark its arrival, the deficiency was subsequently supplied. The next Kṛita age, and of course each Kṛita age after it,

a day: see the *Bṛihat-Saṁhitā*, ed. Vizianagram Sanskrit Series, vol. 1, p. 32.

[1] It is a curious point that the length of the daytime of this age is the same with the length of the true original *exeligmos*, the Yugapāda, 1,080,000 years. This, however, is perhaps a mere coincidence, a natural result of the period which had to be redistributed and of the principles on which that was to be done.

is to be attended by a conjunction of the sun, the moon, the planet Jupiter, and the *nakshatra* Tishya, perhaps better known as Pushya, which is part of the constellation and sign Karka, the crab (Cancer).[1] But it must be noted that every Kṛita age, like all the other cosmical periods, must begin at the vernal equinox: and such a conjunction as this one can only happen shortly after the Hindū summer solstice; it is only at that time of the year that the sun is in Karka.

[1] See, e.g., the *Vāyu-Purāṇa*, 99. 413:—

Yadā chandraś=cha sūryaś=cha tathā Tishya-Bṛihaspatī |
ēka-rāśau bhavishyanti tadā Kṛitayugaṁ bhavēt ||

The *Matsya* does not seem to include this statement: at any rate, it is not found in the passage, 272/273. 27 ff., where in agreement with the other Purāṇas it should be. The *Brahmāṇḍa*, however, has the verse, 74. 225, word for word the same.

The *Vishṇu*, 4. 24. 30, has the first half of the verse in the same words: its second half runs:—ēka-rāśau samēshyanti bhavishyati tataḥ Kṛitam.

The *Bhāgavata*, 12. 2. 24, follows the *Vishṇu*, except that its last *pāda* runs:— tadā bhavati tat=Kṛitam.

The verse is found also in an interpolated passage in the *Mahābhārata*, 3, Vanaparvan, § 190. 13099: here it agrees with the *Vishṇu* and the *Bhāgavata*, except that the last *pāda* runs:— pravartsyati tadā Kṛitam.

This verse does not exactly assert what is technically known as a conjunction: it only says that the sun, the moon, Jupiter, and Tishya "will come together, or will be (*together*), in one sign." But a conjunction is obviously implied; because otherwise the occurrence would be too common. Jupiter spends nearly one year out of every twelve in Karka; and, on each occasion while he is there, he will be in conjunction with Tishya, and the sun and moon will be in conjunction with each other in that same sign once if not twice: but it is only at very long intervals that all the four will be in conjunction.

(To be concluded in the next number.)

THE case set out in the first part of this article, pp. 479–96 above, will, it is hoped, make it clear that the Kaliyuga era is not of historical origin, dating from the occurrence of any actual event in B.C. 3102, and running in actual use from that time. It is nothing but an artificial reckoning —(almost as much so as is our Julian Period, beginning 1 January, B.C. 4713)— devised by the Hindū astronomers some thirty-five centuries after the initial point which they assigned to it; that is, roughly, at some time about A.D. 350–400. And it is the principal Hindū astronomical reckoning (the other being the Śaka era beginning in A.D. 78);[1] used in particular —(just as we use the Julian Period)— for the *ahargaṇa* or sum of days from the beginning of the reckoning down to any given time.

Still, the Kaliyuga reckoning having been once set going and having required more or less publicity, it is not surprising that some of the ancient Hindūs should have believed, as some of their descendants do now, that it really dated from its apparent initial point, and proceeded to find an origin for it in their traditions. They did this by connecting it with the events of the great struggle for supremacy between the Pāṇḍavas and the Kurus, which is the topic of their greatest epic, the *Mahābhārata*.[2] But, while agreeing on the general

[1] For a note on the Śaka era and its adoption by the astronomers, see this Journal, 1910, 818.

[2] It is perhaps desirable not to omit to remark, though the point is not exactly relevant to our present topic, that another school differed radically from those which interest us here, and placed the Pāṇḍavas and the Kurus 653 years after the beginning of the Kaliyuga; that is, in B.C. 2449. This view is presented by Varāhamihira (died A.D. 587)

principle, they adjusted the connexion on different lines, on the bases of three of the leading events in the epic story.[1]

One view (not necessarily the earliest, though it is convenient to mention it first) treated the Kali age and reckoning as dating from the time when Yudhishṭhira mounted the throne. In accordance with this, an inscription of A.D. 1798 in Rājputānā (see p. 694 below) is dated 4898 years after the time when Yudhishṭhira seated himself on the throne: the Vikrama and Śaka dates, given in the same record, showing that these 4898 years were reckoned from B.C. 3102, and are in fact years of the Kaliyuga era. In further agreement with this and with a practice which is traced back to at any rate the sixteenth century, the Hindū almanacs call the first 3044 years of the Kaliyuga —(the period from its beginning to the beginning of the Vikrama era in B.C. 58)— the era of Yudhishṭhira. And, as they proceed to say that he founded his era at Indraprastha, Delhi, this view plainly dates it from the first occasion on which he was enthroned as king; namely (see p. 685 below), at the new capital in the Khāṇḍavaprastha territory which he made when the kingdom had

in a well-known verse in which, quoting, he tells us, the opinion of a previous writer, Vṛiddha-Garga, he says (*Bṛihat-Saṁhitā*, 13. 3):—"The Munis (the Saptarshis, the seven stars of the Great Bear) were in the *nakshatra* Maghā when king Yudhishṭhira ruled the world: and the Śaka time is joined with 2526 (*years*) of that king." The verse was given to furnish the means of finding, by the Śaka reckoning, the *nakshatra* for the Saptarshis at any given time, on the basis that they entered Maghā when Yudhishṭhira began to reign, and that that event took place in 2526 – 77 = B.C. 2449.

This view was adopted by Kalhaṇa for the chronology presented in his *Rājataraṅgiṇī*, which he wrote in A.D. 1148–50: he says (1. 48–56, and compare 8. 3407) that some people had built up a false chronology through being misled by a statement that the Bhārata affair took place at the end of the Dvāpara; and, following Varāhamihira's verse, which he quotes, he tells us that the Pāṇḍavas and the Kurus lived when there had elapsed 653 years of the Kali.

[1] Regarding the order and indicated chronology of these events, see the Special Note A, p. 684 below.

been divided with him by Dhritarāshṭra. The Mahābhārata seems plainly to take practically the same view: according to it, shortly after that enthronement of Yudhishṭhira there came the exile of him and his brothers in the Kāmyaka forest on the banks of the Sarasvatī; and one of the earliest occurrences there was a visit by Hanumat, who delivered a discourse on the moral characteristics of the four ages, in the course of which he observed that the Kali age had recently begun.[1]

Another view selected for the starting-point of the Kali age an event which came some thirty-six years later, and treated the age as beginning when Yudhishṭhira, having anointed his grand-nephew Parikshit to reign in his place, started with his brothers and their joint wife Draupadī on the journey to heaven. This was the final occurrence in the story of the Pāṇḍavas and the Kurus. We may, no doubt, refer to this school Ravikīrti, the author of the Aihoḷe inscription of A.D. 634 (p. 689 below, No. 1), which is dated in the year 3735 expired after the Bhārata war and in the Śaka year 556 expired, which latter detail identifies the year 3735 after the Bhārata war with the year 3735 of the Kaliyuga reckoning: we could hardly understand the words "after the Bhārata war" as indicating a reckoning running from the end of the fighting, which was no well-defined point; we take them as meaning "after the last of the occurrences connected

[1] Ētat = Kaliyugaṁ nāma achirād = yat = pravartatē: 3, Vanap., Calcutta text, § 149, verse 11261; Kumbakonam text, § 151, verse 39. So also. 9, Śalyap., § 61, verse 3364, speaks of the Kali age as having arrived (*prāptaṁ Kaliyugaṁ riddhi*): this is one of the excuses made by Kṛishṇa for the unfair fatal blow dealt by Bhīma to Duryōdhana in their fight with clubs.

On the other hand, another statement, 1, Ādip., § 2. 282, speaks of the great war as taking place in the interval between the Dvāpara and the Kali (*antarē Kali-Dvāparayōḥ*). But this statement, made in the general introduction to the epic, is plainly nothing but a broad one which is not to be taken literally, any more than the statement in the same passage, verse 272, that (Paraśu)-Rāma slew the Kshatriyas at the junction of the Trētā and the Dvāpara (*Trētā-Dvāparayōḥ saṁdhau*).

with the Bhārata war". And it seems probable that the astronomer Āryabhaṭa, who wrote in or soon after A.D. 499, belonged to this school. At any rate, the Daśagītikasūtra, verse 3, mentions as *Bhārata Gurudivasa*, "the Bhārata Thursday", the day before the day with which there began his fourth Yugapāda, which is in other terms (not his) the Kali age. And his commentator Paramēśvara remarks :—

Bhāratā Yudhishṭhir-ādayaḥ I tair=upalakshitō Gurudivasō Bhārata-Gurudivasaḥ I rājyaṁ charatāṁ Yudhishṭhir-ādīnām=antyō Gurudivasō Dvāpar-āvasāna-gata ity=arthaḥ I tasmin=dinē Yudhishṭhir-ādayō rājyam=utsṛijya mahāprasthānaṁ gatā iti prasiddhiḥ II

"The Bhāratas are Yudhishṭhira and the others; the Thursday distinguished by them is the Bhārata Thursday: the meaning is the Thursday at the end of the Dvāpara which was the last day of the time during which Yudhishṭhira and the others were occupied in reigning: it is well established that on that day they laid aside the sovereignty, and went on the great journey."

The third view is that of the Purāṇas, which adopted an occurrence somewhat earlier than the abdication of Yudhishṭhira, and treated the Kali age as beginning on the day when Kṛishṇa died.[1] This is another event of leading importance in the story of the Pāṇḍavas and the Kurus. Kṛishṇa was an incarnation of Vishṇu and was friendly to both parties, being in fact connected by descent with both. When the preparations were being made for the great battle, Arjuna on one side and Duryōdhana on the other went to Dvārakā to secure Kṛishṇa as an ally. He was not willing to fight on either side. But he gave them a choice: either of them might have him as an adviser, or his army as combatants. And Arjuna chose Kṛishṇa himself, and Duryōdhana obtained the army. Kṛishṇa survived the war, and died not very long before

[1] See the Special Note B, p. 688 below.

the abdication of Yudhishṭhira, which seems, in fact, to have been largely induced by the death of his old friend and counsellor.

While, however, so much importance came to be attached to the Kali age and its reckoning from the legendary point of view, the reckoning has not played any leading part in real historical chronology and other practical affairs. Its running year is shown, indeed, along with the Vikrama and Śaka years and the year of any local reckoning, in most, if not quite all, of the leading Hindū almanacs. But this seems to be done simply because it is the principal astronomical reckoning: it is agreed on all sides that the era is not now in any general use, if it is quoted at all, for practical purposes of civil dating.[1] And as regards the custom of previous times as indicated by the inscriptional records, which furnish a good guide in view of the large number of them that we have, the position is as follows:[2]—

From Southern India we have one inscriptional instance of A.D. 634, one of A.D. 770, one of A.D. 866, three of the tenth century, and then, from the twelfth century onwards, but more particularly from the fourteenth, a certain number of instances, not exactly very small in itself, but extremely so in comparison with the number of cases of the use of the Śaka era and the other reckonings which prevailed in those parts.

From Northern India the earliest known inscriptional instance is one of A.D. 1169 or 1170; and the later ones number only four.

[1] So, also, our leading almanacs and diaries show the running year of the Julian Period: but little practical use, if any, is made of the reckoning for the record of current events.

[2] For the inscriptional instances see the Special Note C, p. 689 below. If any readers of this article can adduce any other such dates ranging from before A.D. 1100 for Southern India and A.D. 1169 for Northern India, and any literary dates earlier than A.D. 976, their contributions to the history of the reckoning will be welcome.

Literary instances are not at all common, even in astronomical writings; because the Śaka era was so soon adopted by the astronomers for laying down epochs and stating dates. The earliest available one[1] seems to be one of A.D. 976 or 977 from Kashmīr: it is the year in which Kayyaṭa, son of Chandrāditya, wrote his commentary on the Dēviśataka of Ānandavardhana, when Bhīmagupta was reigning.[2]

It seems also worth adding that the era is ignored as a practical reckoning of civil life in a passage in the *Akbarnāma*, written in A.D. 1584, which specifies the Lakshmaṇasēna era as the reckoning of Bengal, the Śaka era as the reckoning of Gujarāt and the Dekkan, and the Vikrama era as the reckoning of Mālwā, Delhi, and those parts.[3]

The popular view divides the Kaliyuga into six eras. Some of the leading Hindū almanacs quote to this effect a certain stanza which is apparently a floating verse not traced to any particular source, and supplement it by a statement in prose.[4] Others give the prose statement

[1] That is, after the statement in which Āryabhaṭa indicated his date and age: and, while he gave what is virtually a year of the Kali reckoning, he did not cite it as such: see p. 111 f. above.

[2] The verse giving the date, which I quote from the *Kāvyamālā*, part 9 (1893), p. 31, runs thus:—

> Vasu-muni-gagan-ōdadhi(4078)-sama-
> kālē yātē Kalēs=tathā Lōkē |
> dvāpañchāśē varshē
> rachit=ēyaṁ Bhīmagupta-nṛipē ||

The details of the month, etc., not being given, the date does not admit of actual verification. The given Kaliyuga year, 4078 expired, means A.D. 977-78; but the Lōkakāla or Laukika year 52 indicates A.D. 976-77, unless, as was suggested by Professor Kielhorn (*Ind. Ant.*, 20. 154), we may understand that, contrary to the usual custom for this reckoning, it is here cited as the expired year: on this point compare the date of A.D. 1428 or 1429, p. 693, below.

[3] See the translation by Beveridge, vol. 2, p. 21 f.

[4] See the Special Note D, p. 694 below.

without citing the verse. The prose statement is presented with some slight differences. But the general purport of it is as follows :—

First there came the era of Yudhishṭhira, or Dharma as he is called in one version. He founded his era at Indraprastha, Delhi. And it lasted for 3044 years; that is, from the beginning of the Kaliyuga to the beginning of the so-called Vikrama era in B.C. 58.

Next there came the era of king Vikrama. He founded his era at Ujjain, in Mālwā. And it measured 135 years: that is, from B.C. 58 to the beginning of the so-called Śaka era in A.D. 78.

Then there came the era of king Śālivāhana:[1] that is, the Śaka era beginning in A.D. 78. He founded his era at Pratishṭhāna, Paiṭhaṇ on the Gōdāvarī in the Nizam's Dominions. It is to have a duration of 18,000 years.

The next will be the era of king Vijayābhinandana, which is to last for 10,000 years. This king is located by some *Vaitaraṇyāṁ sindhu-saṁgamē*, which might perhaps mean at some place named Vaitaraṇī at the confluence of the Indus and the five rivers of the Panjāb. But another version places him *Gautamī-sāgara-saṁbhēdē*; that is, apparently, at the place where the Gautamī branch of the Gōdāvarī flows into the sea, which is at Point Koringa near Coconada, in Madras. And this suggests that the other expression may mean "on the Vaitaraṇī, at the place where it flows into the sea." The Vaitaraṇī rises in the north-west part of Orissa, and, joining the Brāhmaṇī near Cuttack, after which the joint river is known as the Dhāmrā, flows into the Bay of Bengal at Palmyras Point.

The next will be the era of king Nāgārjuna, which will

[1] This is an imaginary king, whose name first figures in connexion with the era in an inscription of A.D. 1272, and seems plainly to have been introduced in imitation of the coupling of the equally imaginary king Vikrama, Vikramāditya, with the era of B.C. 58.

last for 400,000 years. He is located by some at Dhārā-tīrtha in the country of Gauḍa, or, roughly, Bengal. apparently with reference to a place of this name somewhere near the beginning of the delta of the Ganges. But the other version places him on the bank of the Kāvērī, in Mysore or Madras.

The last will be the era of Kalkin: this will endure for the 821 years which are the remainder of the 432,000 years of which the Kaliyuga consists. One version styles Kalkin a king, and locates him vaguely in the Gauḍa country. Another, styling him an incarnation (of Vishṇu) in accordance with the more general view, places him at the city Karavīra in the Karnāṭaka country; that is, at Kōlhāpūr, in Bombay. A third version, which again marks him as a king, places him, in accordance with some of the Purāṇas, at a village named Sambhala or Śambhala, which is held to be Sambhal in the Mōradābād District, United Provinces.

The *Jyōtirvidābhāraṇa* (see p. 696 below) gives the same lengths for the six eras, but in other respects puts the matter somewhat differently. There will be, it says, in the Kali age, in the land of the Bhāratas, many warrior kings; amongst them, the Śakas. Any prince who slays half an *abja* and five *koṭis* (550,000,000) of Śakas, becomes the founder of an era, a universal king, and a slayer of founders of eras. There are to be six such in the Kali age: Yudhishṭhira at Hastināpura; Vikrama at Ujjain; Śālivāhana at the mountain Śālēya; Vijayābhinandana at Chitrakūṭa;[1] Nāgārjuna at Rōhītaka, Rōhtak in the Panjāb; and Bali (so, instead of Kalkin) at Bhṛigukachchha, Broach in Gujarāt, Bombay. After that the Kṛita age will come, and there will be the kings of the Solar Race again.

To what time the idea of this division of the Kaliyuga

[1] Perhaps Chitōr in Udaipūr, Rājputānā: perhaps Chitarkōṭ in Bānda. United Provinces.

may be carried back, is not known. But it is mentioned by Abul Fazl in his *Āīn i Akbarī*, in a passage written in A.D. 1595,[1] which gives the names of the six founders of the eras and the duration of each era just as we have them in the almanacs, but does not state the places to which the almanacs refer them. And it is perhaps carried back to a somewhat earlier time by the spurious record on copperplates at the Bhīmankaṭṭi Maṭha near Tīrtha-halli in Mysore,[2] which purports to record a grant made by king Janamējaya (son of Parikshit) in the Plavaṁga *saṁvatsara* which was the 89th year in the Yudhishṭhira-śaka, "the era of Yudhishṭhira"; that is, in the Kaliyuga year 89 (current), in B.C. 3014. But it is not likely to be of any early origin; since no trace of it is found in the Purāṇas, etc., which do not assign the foundation of an era even to Kalki or Kalkin: they only mention him as the future incarnation of Vishṇu, destined to pave the way for the next Kṛita age.[3]

In connexion with the general topic of the Ages, the following remark may be added in conclusion.

According to the astronomical scheme, every Age, Manvantara, and Kalpa begins at the Hindū nominal vernal equinox, as marked by the entrance of the sun into the constellation and sign Mēsha, which occurs in the *amānta* lunar month Chaitra,[4] the first month of the principal lunar year, but of course not on any fixed *tithi*

[1] Translation by Jarrett, vol. 2, p. 15. As regards the first era, the passage says:—"In the beginning of the present Yug, Rājā Judhishthira conquered the universe and being at the completion of an epoch [i.e., at the end of the Dvāpara age], constituted his own reign an era."

[2] No. 41 in my List of Spurious Records, *Ind. Ant.*, 1901. 219.

[3] See the Special Note E, p. 697 below.

[4] The *amānta* month is the synodic lunar month, beginning and ending with the new-moon. The *pūrṇimānta* month begins and ends with the full-moon.

or lunar day in that month. The popular practice, however, for some reason which is not apparent, treats the matter otherwise, and observes certain fixed *tithis* as anniversaries of the beginning of each of the great periods. For the Ages, the days as shown in almanacs are as follows:—

The Kritayugādi *tithi*, or lunar day which is the anniversary of the beginning of a Krita age, is Kārttika śukla 9. The Trētāyugādi *tithi* is Vaiśākha śukla 3. The Dvāparayugādi *tithi* is the new-moon *tithi* of the *amānta* Māgha or *pūrṇimānta* Phālguna. And the Kaliyugādi *tithi* is the 13th of the dark fortnight of the *amānta* Bhādrapada or *pūrṇimānta* Āśvina.

This practice dates from at any rate the beginning of the eleventh century, since it is mentioned by Albērūnī, writing in A.D. 1030. But he has given the details differently, except as regards the Kaliyugādi *tithi*; according to him the "3rd Vaiśākha" is Kritayugādi; the "9th Kārttika" is Trētāyugādi; and the "15th Māgha" is Dvāparayugādi.[1]

It is also alluded to in the *Vishṇu-Purāṇa*, 3. 14. 12, 13, but without full details:—"The 3rd *tithi* of Vaiśākha, the 9th in the bright fortnight of Kārttika; the 13th in the dark fortnight of Nabhasya (Bhādrapada), and the 15th in Māgha; these have been declared by the ancients to be Yugādya *tithis*: they are four *tithis* of infinite merit."

SPECIAL NOTES

A: see p. 676 above.—The chronology of some leading events in the story of the Pāṇḍavas and the Kurus

Yudhishṭhira ascended the throne twice. The first occasion was as follows:—

After the death of their nominal father, Pāṇḍu, who abdicated and ended his days in retirement in the forests

[1] *India*; trans. Sachau, vol. 2, p. 186.

of the Himālaya Mountains, Yudhishṭhira and his four younger brothers, Bhīma, Arjuna, Nakula, and Sahadēva, were taken to the capital Hāstinapura, and were brought up there with the sons of the reigning king, their uncle Dhṛitarāshṭra. And, when they had completed their education and attained years of discretion, Yudhishṭhira was installed by Dhṛitarāshṭra as Yuvarāja or heir apparent associated in the government:[1] this was done partly in recognition of Yudhishṭhira's many good qualities, but also in view of the facts that his father Pāṇḍu had reigned before Dhṛitarāshṭra,—the latter having been passed over, though he was the elder brother, because he was blind,— and that he himself had been born before Dhṛitarāshṭra's eldest son, Duryōdhana. When Yudhishṭhira had been installed as Yuvarāja, the people, to whom he quickly endeared himself, wished, for the reason that Dhṛitarāshṭra, being blind, ought not to reign, to take a further step and anoint him as king. This inflamed the jealousy and enmity of Duryōdhana, which had existed from an early time: and he began to plot to secure the sovereignty for himself. Eventually Dhṛitarāshṭra sought to arrange matters by dividing the kingdom: he gave Hāstinapura to his sons, the Kurus, and assigned to the Pāṇḍavas, Yudhishṭhira and his brothers as the sons of Pāṇḍu, a territory named Khāṇḍavaprastha, where they founded the city Indraprastha, Delhi. And after various occurrences, including a conquest of surrounding kingdoms on behalf of Yudhishṭhira by his brothers, Yudhishṭhira celebrated a Rājasūya sacrifice, and had himself anointed as paramount king of Indraprastha and the territories which were thus added.[2] This was the first occasion on which he ascended the throne.

The second occasion on which Yudhishṭhira mounted the throne came some fifteen years or so later. Even the

[1] *Mahābhārata*, Calcutta ed., 1, Ādiparvan, § 139. 5517.
[2] 2, Sabhāp., § 32. 1230, 1247; § 35. 1307; § 45. 1628–30.

partition of the kingdom made by Dhṛitarāshṭra failed to satisfy Duryōdhana: and by his conspiring with Śakuni, the skilled gambler and cheat, there was brought about the great gambling match which ended in Yudhishṭhira losing all his possessions to Śakuni on behalf of Duryōdhana, and going into exile with his brothers for thirteen years, the first twelve of which were passed in the Kāmyaka forest on the banks of the Sarasvatī. There followed, ultimately, the great war, at the end of which there remained alive, on the Pāṇḍava side, Yudhishṭhira and his brothers, with Sātyaki and Kṛishṇa, and, on the other side, the aged king Dhṛitarāshṭra, with Aśvatthāman, Kṛipa, Kṛitavarman, and Bhīshma, who lay dying on a bed of arrows on the battlefield. A reconciliation was effected between Dhṛitarāshṭra and the Pāṇḍavas. Yudhishṭhira proceeded to Hāstinapura, and was there enthroned as king of the united kingdom of Hāstinapura and Indraprastha, with Bhīma as his Yuvarāja.[1] And thus Yudhishṭhira mounted the throne for the second time.

The death of Kṛishṇa came about twenty years after the last event noted above. Some intermediate occurrences were as follows. Bhīshma died when he had lain for fifty-eight nights on his bed of arrows.[2] After some unstated interval there was born Parikshit, the posthumous son of Abhimanyu son of Arjuna.[3] A year was then occupied with an Aśvamēdha sacrifice.[4] Some little time after that, and when fifteen years had elapsed since the anointment of Yudhishṭhira as king at Hāstinapura, Dhṛitarāshṭra withdrew from the world, to spend his remaining days in the forest.[5] Apparently about a year later, Yudhishṭhira and his brothers paid a visit to

[1] 12, Śāntip., § 37. 1386–92; § 40. 1443; § 41. 1475.
[2] 13, Anuśāsanap., § 167. 7732; § 168. 7765.
[3] 14, Āśvamēdhikap., § 66. 1943.
[4] 14, Āśvamēdhikap., § 72. 2095; § 89. 2644.
[5] 15, Āśramavāsikap., § 1. 6; § 3. 71–2, 84, 96; § 15. 428.

Dhritarāshṭra in his retirement.[1] Two years after their return,[2] the sage Nārada came to Yudhishṭhira, and reported that Dhritarāshṭra had perished in a forest fire. And we are told farther on that, when Dhritarāshṭra died, he had spent three years in the forests and fifteen in the city.[3] The epic then tells us that, when thirty-six years had elapsed,[4] Yudhishṭhira beheld unlucky portents: this has been understood to mean thirty-six years after the great war; but we would suggest thirty-six years after the first anointment of Yudhishṭhira as king at Indraprastha. And it was apparently not long after this that Krishṇa died, being slain by the hunter Jarā, who mistook him, seated in yellow robes engaged in meditation, for a deer. Thus, we are told, the lord Nārāyaṇa (Vishṇu, of whom Krishṇa was an incarnation) went back to his own abode.[5]

The news of the death of Krishṇa must have taken some little time to reach Yudhishṭhira, since it was carried to him by Arjuna, who first went to Dvārakā to perform the funeral rites and make some other arrangements, and then visited the sage Vyāsa on the way to his eldest brother. As soon, however, as he heard it, Yudhishṭhira made up his mind to withdraw from the world;[6] in which resolution his brothers joined. Accordingly, he anointed Parikshit to reign in his stead.[7] And with his brothers, their joint wife Draupadī, and a dog, he started from Hāstinapura on the journey which landed them one by one in heaven.[8]

[1] 15, Āśramavāsikap., § 23. 624.
[2] 15, Āśramavāsikap., § 37. 1011.
[3] 15, Āśramavāsikap., § 39. 1102.
[4] 16, Mausalap., § 1. 1, 13; § 2. 52.
[5] 16, Mausalap., § 4. 125–30.
[6] 17, Mahāprasthānikap., § 1. 1, 2.
[7] 17, Mahāprasthānikap., § 1. 6.
[8] 17, Mahāprasthānikap., § 1. 24–5.

B: see p. 678 above.—The connexion of the beginning of the Kali age with the death of Kṛishṇa

On the subject of the Kali age beginning on the day on which Kṛishṇa died, there is a standard verse, which in the *Vāyu* and *Brahmāṇḍa Purāṇas* runs thus:[1]—

Yasmin = Kṛishṇō divaṁ yātas = tasminn = ēva tadā dinē |
pratipannaḥ Kaliyugas = tasya saṁkhyāṁ nibōdhata ||

The *Matsya-Purāṇa* gives *tad = āhani* for *tadā dinē*, and presents the second line thus:[2]—

pratipannaṁ Kaliyugaṁ pramāṇaṁ tasya mē sṛiṇu |

The *Bhāgavata-Purāṇa* agrees with the *Matsya* in the first line, and presents the second thus:[3]—

pratipannaṁ Kaliyugam = iti prāhuḥ purāvidaḥ ||

The *Vishṇu-Purāṇa* agrees with the *Matsya* and the *Bhāgavata* in the first line, and presents the second thus:[4]—

pratipannaṁ Kaliyugaṁ tasya saṁkhyāṁ nibōdha mē ||

The *Vāyu*, *Matsya*, and *Brahmāṇḍa Purāṇas* confine themselves to the statement:—"The Kali age arrived on that same day on which Kṛishṇa died."

The *Bhāgavata* says:[5]—"(*When*) this lustre of the lord Vishṇu, by name Kṛishṇa, went to heaven, then Kali[6] entered the world, whereby people delight in sin. As long as he, the lord of Lakshmī, touched (*the earth*) with feet beautiful as water-lilies, so long indeed Kali availed not to invade the earth. Those who know the events of

[1] For the *Brahmāṇḍa* I quote the text printed at the Śrī-Veṅkaṭēśvara Press, Bombay, in Saṁvat 1963, Sakē 1828 (A.D. 1906–7); chapter 74, verse 241. For the *Vāyu*, the edition in the Ānandāśrama Sanskṛit Series (1905); chapter 99, verses 428–9.

[2] Ed. Ānandāśrama Sanskṛit Series (1907); chapter 273, verses 49–50.

[3] Text printed at the Nirṇayasāgar Press, Śakē 1826, San (A.D.) 1905, book 12, chapter 2, verse 33.

[4] Text printed at Krishnasastri Sarman Gurjara's Press in the Kshaya *saṁvatsara* (A.D. 1866–67); book 4, chapter 24, verse 40.

[5] Loc. cit. in note 3 above, verses 29–33.

[6] The Kali age is personified as Kali, an evil spirit presiding over it.

former times say that the Kali age arrived on that same day on which Kṛishṇa went to heaven."

The *Vishṇu*, expanding the topic more, says:[1]—"When indeed, O Brāhmaṇ!, the portion of the lord Vishṇu which was born in the family of Vasudēva went to heaven, then indeed Kali came. As long as he touched this earth with feet beautiful as water-lilies, so long Kali was not able to have contact with the world. When the portion of the eternal Vishṇu had gone from earth to heaven, Yudhishṭhira, the son of Dharma, with his younger brothers, laid aside the sovereignty. And, having seen unlucky portents, he, the Pāṇḍava, when Kṛishṇa had gone, performed the anointment of Parikshit. . . . . . The Kali age arrived on that same day on which Kṛishṇa died."

C: see p. 679 above.—Some inscriptional dates in the Kaliyuga era

The earliest known South-Indian dates in the Kaliyuga era, six in number, referred to on p. 679 above, are as follows:—

(1) The inscription of the time of the Western Chalukya king Pulakēśin II at Aihoḷe in the Bijāpūr District, Bombay, is dated:[2]—

Triṁśatsu tri-sahasrēshu Bhāratād=āhavād=itaḥ [|*]
sapt-ābdaśata-yuktēshu śatēshv[3]=abdēshu pañchasu [||*]
Pañchāśatsu Kalau kālē shaṭsu pañcha-śatāsu cha [|*]
samāsu samatītāsu Śakānām=api bhūbhujām ||

"When thirty, three thousand, (*and*) five years, joined with seven centuries of years, have gone since the Bhārata war: when fifty, six, and five hundred years of the Śaka kings also have elapsed in the Kali time."

[1] Loc. cit. in note 4 on p. 688 above, verses 35-8, 40.
[2] *Epi. Ind.*, vol. 6, p. 7.
[3] Read *gatēshv*.

The mention of the Śaka year shows that the 3735 years since the Bhārata war are the first 3735 years of the Kaliyuga era. Accordingly, this record gives the Kaliyuga year 3735 and the Śaka year 556, both expired. As the details of the month, etc., are not stated, the date does not admit of actual verification. But the year is A.D. 634–35.

(2) An inscription of the time of the Pāṇḍya king Parāntaka at Āṇamalai in the Madura District, Madras, is dated:[1]—

Kalēḥ sahasra-tritayē=bda=gōcharē gatē=shṭa-śatyām=api saikasaptatau [|*] . . . . Paushṇē=hani māsi Kārttikē [||*]

"When there have gone, in the range of the years of Kali, three thousands and eight centuries together with seventy-one, ... on the Paushṇa day in the month Kārttika."

This gives the Kaliyuga year 3871 expired, with a certain day in the lunar month Kārttika. The expression "the Paushṇa day" is of course capable of being taken to denote a day of Pūshan, the sun, i.e. a Sunday, in which sense it was taken by the editor: but this rendering leaves the date vague, since there would be four or five Sundays in the month. The expression is made definite if, in accordance with a frequent custom in Chōḷa and Pāṇḍya dates by which the dates were denoted by the *nakshatras*,[2] we take it as meaning the day of Rēvatī, the regent of which is Pūshan. The result, however, suggests that the words *Paushṇa ahan* may have been used here intentionally, in preference to the name Rēvatī, in order to give a double meaning. Thus, the day of Rēvatī in the given year and month was Sunday, 4 November, A.D. 770: this was the civil day of the eleventh *tithi* of the bright fortnight of Kārttika; and the moon was in Rēvatī at sunrise and up to about 9.45 p.m.

[1] *Epi. Ind.*, vol. 8, p. 320. [2] See, e.g., No. 4 below.

(3) The record of a king Karunandaḍakkan, inscribed on copperplates which were found in the Huzūr Office at Trivandrum in the Travancore State, is dated:[1]—

Kaliyuga-kkōṭṭu nāḷ padināṅgu-nūṟ-āyirattu nāṟpattu oṉbadiṉ=āyirattu eṉbattu ēḻu śeṉṟa nāḷ.

"The day on which there have elapsed fourteen-hundred-thousand, forty-nine thousand, and eighty-seven days of the number of the Kaliyuga."

This specification of the day 1,449,087 elapsed in what is known technically as the *ahargaṇa* or sum of days of the Kaliyuga reckoning, takes us to 8 July, A.D. 866, in the year 3968 current.

(4) The inscription of the time of the Chōḷa king Parāntaka I at Grāmam in the South Arcot District, Madras, is dated:[2]—

Kaliuga-vashaṁ[3] nāl-āyirattu nāṟ[pa]ttu-nālu Madirai-koṇḍa kō=Pparakēśaripaṉmaṟku yāṇḍu 36āvadu Kaliu-[ga . . . . . . ṉṟa] nāḷ padināṅgu-nūṟ-āïrattu eḻu-[ba . . . .]irattu [m]uppattu ēḻu . . . . . . i[v]v-āṭṭ[ai] Ma[gara-nā]yaṟṟu=Chchaṉi-kkiḻamai peṟṟa Iravadi[4]-n[āṉṟu].

"The Kaliyuga year four thousand and forty-four, the 36th year of king Parakēsarivarman who took Madirai, on the day fourteen-hundred-thousand, seventy- . . . . thousand, and thirty-seven, ... on the day of Rēvatī corresponding to a Saturday of the month Makara in this year."

This gives the Kaliyuga year 4044, not specified either as current or as expired, with a day in the solar month Makara which is marked as the day 1,47·,037, not specified either as current or as elapsed, and is further described as the day of the *nakshatra* Rēvatī and as

[1] See the Travancore Archæological Series, No. 1 (1910), p. 5. The editor has wrongly placed the record in A.D. 864–65.

[2] Annual Report of the Archæological Survey of India, 1905–6, p. 183.

[3] Read *varshaṁ*.

[4] Read *Irēvadi*.

a Saturday. Professor Kielhorn has shown that the date is Saturday, 14 January, A.D. 943, in the year 4044 current:[1] it was the day 1,477,037 current of the reckoning, and the twenty-third day of the solar month Makara; and the moon was in Rēvatī at sunrise and up to about 3.12 p.m.

(5) An inscription of the Chōḷa king Parakēsarivarman-Uttama-Chōḷa at Uyyakkoṇḍāṉ-Tirumalai in the Trichinopoly District, Madras, is dated in the year Śaka 901 and Kaliyuga 40[8]0.[2]

The record does not state the month, etc. But, with the given years both taken as expired, it belongs to A.D. 979–80.

(6) An inscription of the same king at Tiruviḍaimarudūr in the Tanjore District, Madras, is dated Kaliyuga 408[3].[3]

Here, again, the record does not give the month, etc. But, with the year taken as expired, it belongs to A.D. 982–83.

As regards the five instances of the inscriptional use of the Kaliyuga era in Northern India, referred to on p. 679 above, the case is as follows:—

Dr. Vogel's forthcoming volume of inscriptions in the Chambā State will present one of these dates, of the Kali year 4270 expired, with details falling in A.D. 1169 or 1170, recorded in an inscription at Sai, and will mention two others from Mando and Kashmīr; namely, one of the year 4530 (current), in A.D. 1428; and one of the year 4622 (current), in A.D. 1520.[4]

The other two, the only ones that can be given here in full, are the following:—

An inscription on a stone found lying at the mouth of

[1] *Epi. Ind.*, vol. 8, p. 261.
[2] See the Annual Report on Epigraphy, Madras, 1908–9, para. 41.
[3] See the Annual Report on Epigraphy, Madras, 1907–8, para. 53.
[4] I am indebted to Dr. Vogel for being able to notice these three here.

a spring known as the Bhuvanēśa or Bhuvanēśvarī at Khunmōh in Kashmir refers itself to the reign of Zainu-l-ābidīn, son of Sikandar, and is dated :[1]—

Saṁ 4 Mārga śuti 5 Śukrē . . . . . . Triṁś-ādhikē cha śata-bhūta-yutē Kalasya[2] yātē sahasra-chaturē śaradāṁ . . . . . . Mārgaśyurśē[3] sitē pakshē chaturthē=py=api vatsarē I . . . . . . pañchamyāṁ Śukravāsarē II

"The year 4, the 5th day of the bright fortnight of Mārga, on Friday : . . . . . . and when there have gone four thousand years of Kali joined with five centuries (*and*) increased by the thirtieth; . . . . . . in Mārgaśīrsha, in the bright fortnight, and in the fourth year; . . . . . . on the fifth *tithi*, on Friday."

This gives the year 4 of the Laukika or popular reckoning, also known as the Śāstra reckoning, the Kaliyuga year 4530 expired, Mārgaśīrsha śukla 5, Friday. The date, however, is not satisfactory. The specification of the Kaliyuga year as expired would place the actual day in A.D. 1429 : but the given year 4 of the Laukika reckoning places it in A.D. 1428.[4] And in neither year does the given *tithi* work out for a Friday : in A.D. 1429 its civil day was Thursday, 1 December, and it cannot by any possibility be coupled with the Friday ; and in A.D. 1428 it was what is known technically as an expunged *tithi*, beginning and ending in between the sunrise at the beginning, and the following sunrise at the end, of Thursday, 11 November.[5] We can only say that the record may be referred to either A.D. 1428 or 1429; with a preference for A.D. 1428 if we may assume

[1] See Mr. Marshall's Note on Archæological Work in Kashmir, 1908, p. 19.

[2] Unless we may correct the reading into *Kalēs=tu* or something like that, we can only find here an imaginative genitive invented to suit the verse.

[3] Read °*śīrshē.*

[4] Compare the date of A.D. 976 or 977, p. 680 above.

[5] The results are the same both by the tables in Sewell and Dikshit's *Indian Calendar*, and by Jacobi's tables in *Epi. Ind.*, vol. 1.

that the person who computed the date carried the *tithi* on to the Friday by making it end not less than about an hour later than the ending-time given by our tables.

An inscription at the temple of Hanumat at Jaisalmēr in Rājputānā is dated:[1]—

Śrī-Yudhishṭhirasya ajāta-śatrōḥ siṁhāsan-ādhyāsanāt varsha-vṛiṁda 4898 gatē Vikramārka-rājyāt saṁvat 1854 Śālivāhana-śakāt śākē 1719 uttarāyana[2]-gatē.

"When a total of 4898 years has gone since the glorious Yudhishṭhira, having no enemies, seated himself on the throne; in the year 1854 from the reign of Vikramārka; in the year 1719 from the era of Śālivāhana; . . . ."

The given Vikrama and Śaka years show that the year 4898 expired since the time when Yudhishṭhira ascended the throne is the Kaliyuga year 4898 expired. The corresponding year is A.D. 1797–98. And, if *uttarāyaṇa-gatē* means "when the winter solstice has just gone by", the actual day is 10 January, A.D. 1798.

D: see p. 680 above.—The six eras in the Kali age

A certain verse, apparently not traced to any particular source, says:—

Yudhishṭhirō Vikrama-Śālivāhanau
tatō nṛipaḥ syād=Vijayābhinandanaḥ ।
tatas=tu Nāgārjuna-bhūpatiḥ Kalau
Kalkī shaḍ=ētē śaka-kārakāḥ smṛitāḥ ॥

"Yudhishṭhira, Vikrama and Śālivāhana, then king Vijayābhinandana, then king Nāgārjuna, (*and*) Kalkin; these are declared by tradition to be the six founders of eras[3] in the Kali age."

[1] See Professor S. R. Bhandarkar's Second Report on Sanskrit MSS., 1907, p. 98.

[2] Read °*ṇa*.

[3] As a result of being the standing name of an era of very leading importance, the word *śaka*, also its derivative *śāka*, came eventually to be used in the general senses of 'an era' and 'a year.'

This verse is given in the introductory parts of some of the Pañchāṅgs, Pañjikās, Tithipatras, or Hindū almanacs. And in the almanac which is published in Bombay by the Ganpat Krishnaji Press Company, and in the Paṭwardhanī Pañchāṅg, started by Professor Kero Lakshman Chhatre, which also (it is believed) is still published in Bombay, it is supplemented by a passage in prose which runs:—

Prathama Indraprasthē Yudhishṭhiras=tasya śakaḥ 3044 ‖ Dvitīya Ujjayinyāṁ Vikramas=tasya śakaḥ 135 ‖ Tritīyaḥ Pratishṭhānē Śālivāhanas=tasya śakaḥ 18000 ‖ Chaturthō Vaitariṇyāṁ [1] Sindhu-saṅgamē Vijayābhinandanas=tasya śakaḥ 10000 ‖ Pañchamō Gauḍa-dēśē Dhārātīrthē Nāgārjunas=tasya śakaḥ 400000 ‖ Shashṭhaḥ Karavīra-pattanē Karnāṭakē Kalky-avatāras=tasya śakaḥ 821 ‖ Ēvaṁ shaṭ 6 śaka-kartāraḥ ‖

An almanac prepared by astrologers of Uppina-Beṭgēri in the Dhārwār District, and printed at the Prasādarāghava Press at Dhārwār,[2] does not present the verse, but says:—

Adhunā-vartamāna-Kaliyuga-madhyē shaṇ nṛipāḥ śaka-kartāraḥ ‖ Ādāv=Iṁdraprasthē Dharma-śaka-pramāṇaṁ 3044 Ujjayinyāṁ Vikrama-śaka-pramāṇaṁ 135 Pratishṭhā-nagarē [3] Śālivāhana-śaka-pramāṇaṁ 18000 Vaitariṇyāṁ [4] Sindhu-saṁgamē Vijayābhinaṁdana-śaka-pramāṇaṁ 10000 Kāvērī-tīrē Nāgārjuna-śaka-pramāṇaṁ 400000 Gauḍa-dēśē Kalki-bhūpati-śaka-pramāṇaṁ 821 ‖

With the Uppina-Beṭgēri almanac there agrees practically an almanac prepared by astrologers of Savaṇūr and Kaḷas in the Dhārwār District, and printed by Khanolkar & Co. at their Karnāṭaka Book Depot Press. It differs only in beginning:— Ētat-Kaliyuga-madhyē shanṛipāḥ [5] śaka-kartāraḥ ādāv=Iṁdraprasthē Dharmaḥ 3044; and in

[1] Read °*raṇyāṁ*.

[2] For the copies of this almanac and the next one, from which I quote them, I am indebted to Mr. R. K. Tarigondkar, Nazir of the District Court, Dhārwār.

[3] Read *Pratishṭhāna-nagarē*.

[4] Read °*raṇyāṁ*.

[5] Read *shaṇ=nṛipāḥ*.

giving, throughout, on the same lines, *Vikramaḥ 135*, instead of *Vikrama-śaka-pramāṇaṁ 135*, and so on. It has the same mistake, *Pratishṭhānagarē* for *Pratishṭhāna-nagarē*: on the other hand it has the correct form *Vaitaraṇyāṁ*, instead of *°riṇyāṁ*.

An almanac printed at the Electric Printing Press, Gwalior, and known, I think, as the Lashkar Pañchāṅg,[1] also does not present the verse, but says:—

Asmin Kalau shaṭ śaka-kartārō nṛipāḥ ‖ Tatr=Ēndraprasthē Yudhishṭhira-śakaḥ 3044 ‖ Tata Ujjayinyāṁ Vikrama-śakaḥ 135 ‖ Tataḥ Pratishṭhānē Śālivāhana-śakaḥ 18000 । tan-madhyē gata-Śakaḥ 1831 śēsha-Śakaḥ 16169 ‖ Tatō Gautamī-sāgara-saṁbhēdē Vijayābhinandana-śakaḥ 10000 ‖ Tatō Dhārātīrthē Nāgārjuna-śakaḥ 400000 ‖ Tataḥ Saṁbhala-grāmē Kalkī bhavitā tach-chhakaḥ 821 ‖ Tataḥ Kṛitayuga-pravṛittir bhavitrī ‖

The *Jyōtirvidābharaṇa*, a spurious astrological work, of late but unknown date,[2] which claims to have been written by the poet Kalidāsa in the Kaliyuga year 3068 expired, in B.C. 34, when king Vikramārka was reigning, says, in chapter 10, verses 107–13:—

Kalau bhavishyanty=atha Bhārat-āvanau
  mahībhujō bāhubhuvō=py=anēkaśaḥ ।
Śakās=tath=aishām=abhishēchan-ādikaṁ
  hitaṁ sad=ōdīrita-kāla-sādhitam ‖ 107
Dharādhibhūr=Bhilla-Śak-ādi-jāti-jas=
  tad=āsana-sthō=bhijanair=namaskṛitaḥ ।
stutaḥ sa rāj-ādhijanaiḥ pratishṭhitō
  na mantra-bhēd-ādy-abhishēchan-ōchitaḥ ‖ 108

[1] For the copy from which I quote I am indebted to Mr. Hira Lal, Extra Assistant Commissioner, C.P., and Mr. Prem Shankar.

[2] Except that a commentary on it was written by Bhāvaratna in the Vikrama year 1768 expired, in A.D. 1711 or 1712. The pretended date of the work is given in chapter 22, verse 21. A translation of chapter 22, the last, by Dr. Bhau Dáji, may be seen in JBBRAS., 6. 26. Weber proposed to refer the work to about the sixteenth century: *Sanskrit Literature*, p. 201, note *

Nihanti yō bhūtala-maṇḍalē Śakān=
 sapañchakōṭy-abjadala-pramān=Kalau ǀ
sa rājaputraḥ śaka-kārakō bhavēn=
 nṛipādhirāj=ōdyata-śāka-kartṛi-hā ǁ 109
Yudhishṭhirō Vikrama-Śālivāhanau
 narādhināthau Vijayābhinandanaḥ ǀ
imē tu Nāgārjuna-mēdinīvibhur=
 Baliḥ kramāt shaṭ śaka-kārakāḥ Kalau ǁ 110
Yudhishṭhirād=vēda-yug-āmbar-āgnayaḥ (3044)
 kalamba-viśvē (135)=bhra-kha-kh-āshṭa-bhūmayaḥ
 (18,000) ǀ
tatō=yutaṁ (10,000) laksha-chatushṭayaṁ (400,000)
 kramād=
 dharā-dṛig-ashṭāv (821)=iti śāka-vatsarāḥ ǁ 111
Yudhishṭhirō=bhūd=bhuvi Hastināpurē
 tath=Ōjjayinyāṁ puri Vikram-āhvayaḥ ǀ
Śālēya-dhārābhṛiti Śālivāhanaḥ
 su-Chitrakūṭē Vijayābhinandanaḥ ǁ 112
Nāgārjunō Rōhitakē kshitau Balir=
 bhavishyat=Īndrō Bhṛigukachchha-pattanē ǀ
Kṛita-pravṛittis=tad-anantaraṁ bhavēt=
 tadā bhavishyanty=avanībhṛitō=rkataḥ ǁ 113

E: see p. 683 above.—Kalkin, Vishṇuyaśas, and the village Sambhala

What the *Purāṇas*, the *Mahābhārata*, and the *Harivaṁśa* say about Kalkin and his surroundings is as follows:—

The *Vāyu-Purāṇa*, 99. 396–7, the *Matsya*, 273. 27–8, and the *Brahmāṇḍa*, 74. 206–7, only say, in almost identical words, that Kalkin will destroy the Mlēchchhas in the 'twilight' of the Kali age.[1] They make no mention of Vishṇuyaśas and the village Sambhala.

The *Vishṇu-Purāṇa*, 4. 24, prose paras. 26–9, says that, when the Kali age is nearly ended, a portion of the lord Vāsudēva (Vishṇu) will descend to earth in the form of

[1] For what is meant by the 'twilight' of an age, see p. 481 above.

Kalkin in the house of Vishṇuyaśas, a leading Brāhmaṇ at the village Śambhala, and will destroy the Mlēchchhas and other wicked people, and will re-establish the world in righteousness; after which, at the end of the Kali age, the minds of people will become as pellucid as crystal: and from these renovated people there will arise offspring which will follow the practices of the Kṛita age.

The *Bhāgavata* announces in 1. 3. 25, that in the 'twilight' of the Kali age Vishṇu will be born as Kalki from Vishṇuyaśas. For the rest it says, in 12. 2. 16–23, that, when the Kali age is almost gone, Vishṇu will manifest himself as Kalki in the abode of the Brāhmaṇ Vishṇuyaśas, a chief man of the village Śambhala, and, riding a swift horse and armed with a sword, will slay all evil people; and so the Kṛita age will come.

The *Mahābhārata*, 3, Vanap., § 190. 13097–106, says that in the troublous times at the end of the Yuga the Brāhmaṇ Kalkin, also named Vishṇuyaśas, deputed by Time, will be born at the village Sambhala, an auspicious Brāhmaṇ settlement; and, conquering by religion, he will become a universal sovereign, and will lead back the world to tranquillity, and, exterminating the Mlēchchhas, will bring about the passing of this Yuga into the one which is to follow it. But this is part of a passage which has been adjudged an interpolation and could hardly be regarded in any other light.

The *Harivaṁśa*, 2367–73, mentions the Brāhmaṇ Kalkin, also named Vishṇuyaśas, of the village Sambhala, who is to be the tenth incarnation of Vishṇu in the 'twilight' of the Kali age; after which, that age being destroyed, the Kṛita age will come again. But, whether this statement was contained in the *Harivaṁśa* which was known to Bāṇa and Subandhu at the beginning of the seventh century, may be regarded as very doubtful.

The Concept of Time and Time-Reckoning among the Hindus: An Anthropological Viewpoint

R.S. Khare

Recently, Pocock (1964) drew attention to some features of the Hindu scheme of time-reckoning, linking it to a specific problem of his Gujarat fieldwork on the Patidar caste group. He summarised, primarily in support of his arguments, the relevant viewpoints of Nilsson (1920) and Van Gennep (1960 ; translation by Vizedom and Caffee), and related these to the concept of time among the Nuer (based on Evans-Pritchard 1940). Pocock rightly points out that Nilsson's argument that "time-reckoning is preceded by time indications" is not limited only to primitive society. It is rather universal. However, the points of reference chosen for time-reckoning may differ from society to society. Thus among the Nuer (an example Pocock took up), the concepts of seasons, *tot* and *mai* ("two halves" of the Nuer division of year), and the divisions of (Nuer's) day may be based upon *social activities* rather than on natural phenomena and/ or on the movement of heavenly bodies. Further, there is usually a "progressive subsumption" of time indications (durations) into socially wider meanings. Van Gennep's *Les Rites de Passage* are viewed as similar subsumptions of durations of biological development of an individual into time-reckoning primarily through rites and ceremonies in which "individual distinctions and differences are translated into social ones" (op. cit., p. 24). In other words, this is, Pocock argues, a "play of society against the corroding effects of duration". The society, as far as possible, maintains itself against those forces which "devalue it, render it meaningless". Finally, Pocock has some further significant observations on the Indian conceptions of duration and time-reckoning, but we would deal with them as we present the points taken up in this note.

Let us restate the importance of time indications for time-reckoning or for the concept of time itself. Once all these indications are, let us say hypothetically, withdrawn, the conception of time ceases altogether.

What are, therefore, the time indicators ? These are always framed in *terms* of or in relation to some natural, astronomical, social, ritual, economic, political ethical or binary objects, activities or conceptualisations. Thus, the concept of time does not stand by itself even at the most abstract level, unless it is related meaningfully to one or more of the above noted categories. However, it is an important question, as Pocock indicates, because it focusses the importance of the relations between individual duration, time-reckoning and the immutable scheme of values of a particular society.

The Hindu concept of time can be no exception in this regard. It is discovered by establishing meaningful *relations* between time-indicators and its bases (e. g., economic, social, political, kinship, religious) on the one hand, and time-reckoning or temporal cycles (within a larger conceptual whole, namely *dharma*) on the other. Zaehner (1962, p. 5-6) has put this problem of Hinduism in the following words : "To this *dharma* (endless, causal past of the universe) there is neither beginning nor end, neither for the sum total of existence (the macrocosm) nor the individual soul (microcosm) : everything is in the bondage to the fetters of Time... Time itself is a revolving wheel returning ever again to the point from which it started, and in it there can be neither purpose nor salvation". Further, he observes that there can be no denying of the fact that the universe is governed by cyclic Time and that the individual soul (mircrocosm), though fettered by time and cause of 'action' and effect *(karma)*, can eventually get release (*moksha* or *mukti*) from this constantly changing form of existence. That such a release is attainable by all is taken for granted. Is this release also bound by the dimensions of time ? If not— as it is actually believed by the Hindu[1] — what are the indicators of such a state ? If we carefully observe, in all the texts, whether *Sruti* (or the Vedas) or *Smriti*, such a 'state of being' (originally conceived as *brahman*, later on as deities of worship) has been described by means of immutable scheme of values, which are considered as beyond the effects of time.[2] The system of values, which are subsumed at this level, are usually spoken of as attributes of self *(atman)*, *brahman*, *Purushottama*, etc. (see, e. g., *Kena Upanishad*, *Geeta*, etc.) Thus, in other words, the specific nature of God or of a deity is revealed through such unchanging attributes, as, for every Hindu, remain the ideals to attain. The Upanishads are full of such sets of values which allow a Hindu to conceive of a 'state of being' (brahman) which transcends space and time, cause and effect (Zaehner 1962, p. 7). The same probably holds true for the set of values usually attributed to a sectarian deity of worship. There is a hard core of values

which not only resists corroding effects of duration, but is held to be as beyond its pale. The characteristics of the *brahman* of Upanishads are today subsumed in the deities of ardent devotion, enshrined whether in a temple situated in a metropolitan city or in a place of pilgrimage. Deities transcend time (*kala*), space *samsara*, causation (*Karma*) — the three knots in the way of liberation (*moksha*) and true *bhakti*.

Now let us refer to the dilemma of ambivalent attitude of Pocock's Patidars towards the Brahman caste group[3]. Guided by pragmatism of the occasion, all caste groups ranking lower than the Brahmans today challenge their supremacy at one time or the other : it is true even in the ritual and religious activities. Yet they cannot completely disregard the unique 'element' that a Brahman inheres. Until death, such an element is beyond the effects of time for a Brahman. It is this which determines his caste rank right from the birth.

Today various religious sects, as also emphasised by Pocock, largely handle a Hindu's goals of *dharma* and *moksha* out of the vital four (the other two being *artha* or the acquisition of wealth, and *kama* or desire or pleasure). As a result, the religious and/or spiritual security provided by the sectarian devotion seems to offset or combat the 'dangers' of offending or degrading a Brahman, who is merely a ritual functionary today. (In order probably to clear off the Brahman's interference in their clientele, the religious sects emphasise more and more individual or private devotion as against ritual or sacrificial mode of appeasing gods and deities.[4]) However the Brahman caste, embodying *brahman* (the 'eternal substrate of the universe from which the eternal *dharma* proceeds'), is given more than divine honour in the Upanishads, (most explicitly in the later writings, e.g., *Manu* I. 96–101) and so it has today. For our argument, we may note the presence of such unchangeable, inherent set of values with the Brahmans. It is common to hear in sect assemblies that though a *Swami* (teacher, preceptor) exhorts his disciples to do away with redundant rituals and priest-craft, he can not but emphasise the inherent superiority of the Brahman (alongwith the *sanyasin* and the ascetic), for all of them are equipped with certain capabilities to attain and help attain liberation or *bhakti*. Time duration cannot deprive a Brahman of this intrinsic superiority, since it is eternal, issuing forth from *brahman*, the timeless Reality.

To return to the problem of time-reckoning. As already observed, time-reckoning is always, irrespective of the level of society, an activity in which some sort of *relation* must be established between a particular and a repetitive event. Only then can an idea of measurement be conceived

(cf. Leach 1954, p. 110). Grounded on this basic logic of 'dimension', time can be conceptualized and reckoned by social events or activities, or by individual duration as against eternal dimensions of a *bhakta's* deity or *sanyasin's brahman* of the Upanishads. For the anthropologist, the *relations* between time indicators, time-reckoning and the social system are most important. They may give a sharper perspective to the study of relations between a system of values and a social system. The Brahman's ritual status in the caste system is a case in point, and as we have noted, the ritual status of this group is linked up with some such sets of values which deny change through time—a fact held even by those who challenge Brahman's status. When Pocock observes that the Patidars today emphasise *bhakti*, history and individual, he does not go outside the Hindu's time-reckoning system. For, *Kaliyuga* may devaluate *dharma*, (depicted as having only one foot as against four in the *Krta* age), but it cannot destroy it completely. *Dharma* is eternal (*sanatana*). If it is corroded by time, it has a regenerating mechanism built in it. It will be, as texts ordain, reinstated by Kalki incarnation. And the wheel of time, with the *ordained* caste system, will go round and round as ever. *Bhakti* is viewed as a *path* evolved and suitable for *Kali* age; it is a short-cut approach to reach those goals which are attainable through severe austerity and sacrifice, rites and rituals in other three ages. What Krishna and Shiva would do for the devotes in the *Kali* age would not be done by these deities in *Krta* age because the conditions of time on *dharma* would have changed in that age. In Kali age, Shiva and Krishna cut through the cycle of birth and death for their devotees and they intervene in the cycle of *Karma*; they, however, do not stand in the same relationship in other ages. According to the Puranas, these gods in the *Krta* age, themselves, take to asceticism, penance and sacrifice. For example, we may take the case of *nara* (man) and *Narayana* (God) in the Hindu myth, in which both of them take to *tapa* (penance) during the *Krta* age. Such evidence give support to the arrangement which would regard Shiva's and Krishna's 'intervention' through *bhakti* as only a dimension of time-reckoning. The fetters of *Kala* (time), *Karma* (action) and *samsara* (world), specially as subsumed under the social structure, remain an eternal challenge to a Hindu. Establishing eternal *dharma* in the universe is the ultimate result of the Hindu time-reckoning system. It is tried in all the four ages through incarnations. These always tilt the balance in favour of *dharma* by their intervention and constitute another important way of reckoning time within and between the *yugas* (ages). There are twentyfour incarnations dispersed in all the four *Yugas*, the *Kali-yuga* having only one.

This raises an important question of duration versus intensity of *adharma* in social relations; which one of the two is more important for an incarnation to appear? It is definitely the intensity of *adharma* (unrighteousness) which determines the mode and time of intervention by an incarnation. It is thus another pointer to the effect that various time-indicators and time-reckoning devices keep up their main 'concern'—*dharma*—which in terms of Manu 'holds together' groups of people (caste groups) in a systematic and orderly way (I, 2).

Thus, for an understanding of the Hindu system of time-reckoning, it is important that time-reckoning should be seen as meaningfully related to the over-all social concern with person to person and person to group *dharma*. (The concept of 'social' is nothing that is more than *dharma*. In personified God it is characterised as a grand *theophany*, for example in *Gita*, Chap. XI). But, as also pointed out above, "........ this *dharma* is 'subtle' and 'very difficult to know'. Indeed it is the very ambivalence of this key concept that both gives to Hinduism its distinctive flavour and sets up within it a tension that is never wholly resolved" (Zaehner 1962, p. 2).

At a higher level of conceptualisation even the eternal time cycle (*kalachakra*) is meaningless, unless conceived with the explicit purpose of keeping up such *dharma*. Hindu time-reckoning devices always base themselves on this theme. If, for example, the Brahman's ritual status is observed as running down in the *duration* of last 40 years, the time-reckoning scheme need not be altered to accommodate such a change, because (1) it is a change in conformity with the *Kali* age, (2) it does not, as it cannot, alter the eternal primacy of *dharma* over *adharma*, and (3) such a change or devaluation will surely be done away with at an appropriate time (by incarnation mechanism).

This brings us to emphasise the point that the concept of time and time-reckoning are both closely inter-related and meaningfully organised systems. Actually, the concept of time, if it is to be understood anthropologically, may best be considered through the relations that it establishes between time indicators and time-reckoning and eternal concerns of the Hindu society—viz., *Dharma*. And in such an operation the concept of time and time-reckoning cannot be separated, for one reveals the other.

While I cannot go here in detail into the concept of individual vis-a-vis social, it would be worthwhile to note that the Hindu's concept of 'social' is inextricably mixed up with *dharma*, *brahman* and *Purushottama* (God). (However, I do not intend to equate them, for that would bring in some

unverifiable dimensions). Time affects even all of these conceptual schemes, but can never debase them. The system of social values, which deny change, are probably thought to be linked up with or emanate directly from these very sources of 'immutable' conceptualisations of the Hindu. The procedures of time-reckoning, and the meanings of time indicators are also the dimension of such a system. Significantly, *brahman* of *Upanishads* or *Purushottama* of *Gita* exists even before the time 'originated' and even after the measure of time will become 'inconceivable'. The time-reckoning schemes as given in *Mahabharata* and *Manusamhita* make this point (*Manu*, Introduction, lxxxiii—lxxxvii).

Coming back to contemporary problems of social anthropology in India, we may profitably examine, I hope, the Hindu time-reckoning schemes with such groups as (1) householders of all caste groups, as against (2) *sanyasins, sadhus* and *ascetics* who have renunciated the normal yardsticks of social (temporal ?) existence. I suggest these because, as I have already observed, I look upon the problem of time-reckoning as *not merely* of counting discrete, equal and measurable units (subsumed into next bigger unit). It is, moreover, a problem of establishing relations between different levels of conceptual categories, in which time either produces recognisable effect, or is bypassed in the favour of other socially and conceptually important relations – a point arrived at by Pocock too. While basing my arguments all along on his, I have hinted briefly at the interconnections between various time-reckoning devices, the concept of time and the eternal *dharma*—the crucial conceptual scheme for the caste characterised Hindu society.

NOTES

1. "If *moksa* were the result of Knowledge and were therefore endowed with a beginning, it would then come to an end. It would not be eternal....Liberation is therefore not something which is created, but is the realization of what has existed from eternity, but has hitherto been concealed" (Nikhilananda 1963, p. 63).

2. "....it came to be used to represent both the eternal as it is in itself beyond space and time and as it manifests itself in the phenomenal world....it is both eternal being and the unchanging source of all change" (Zaehner 1962, p. 7),

3. I (1962) reported a similar situation for Gopalpur, the north Indian village of my study; in which the Ahir and the Kurmi challenged, partly for political reasons, the ritual status of the Brahman priest and his caste group. He was not called in even for *Satya Narain Katha*.

4. This is a common observation on the role of sects vis-a-vis Brahmans. A look at the history of Hinduism may clarify the implications. For contemporary Indian society this point requires detailed investigation.

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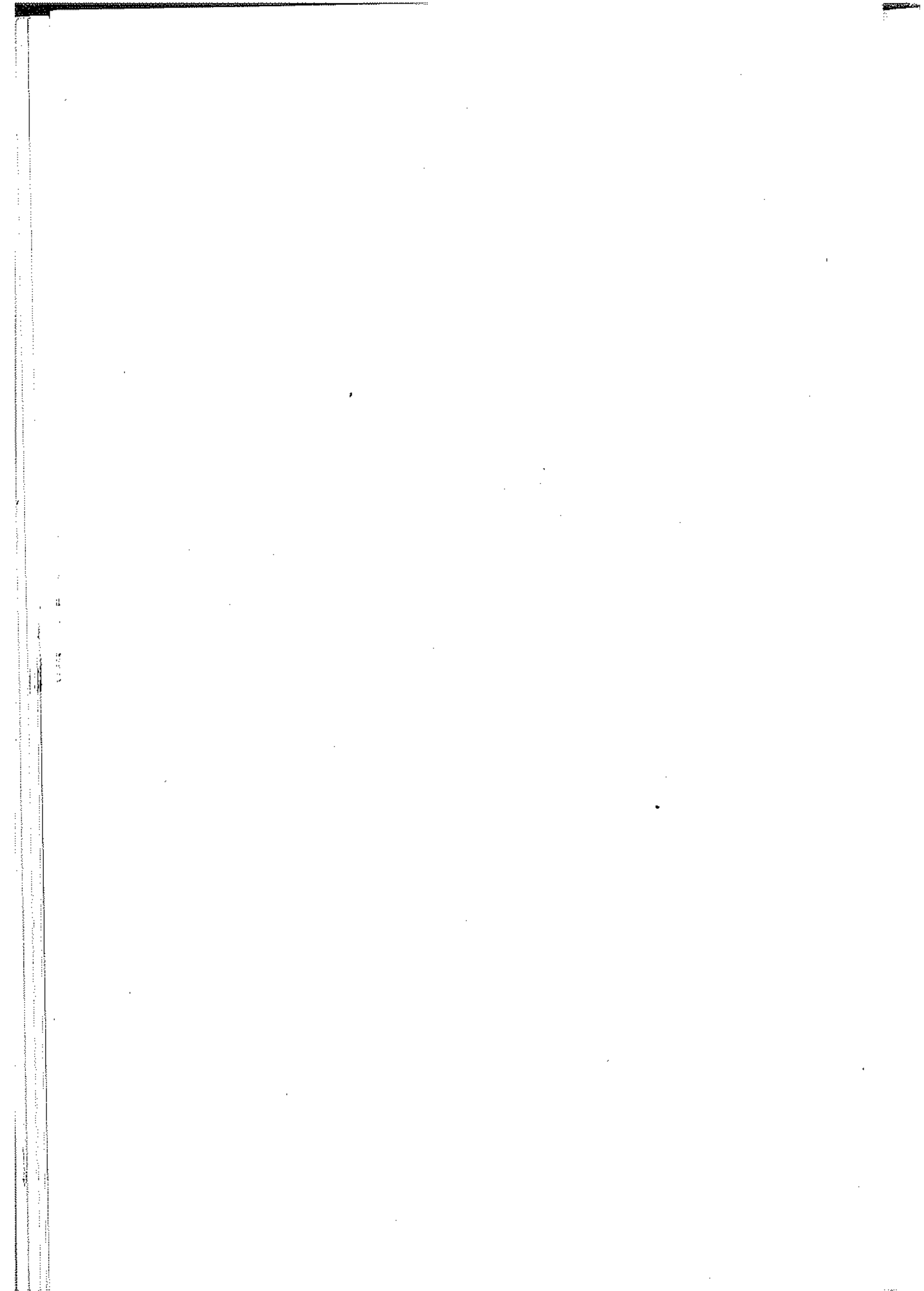
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Time and History in the Indian Tradition

R. Puligandla

The purpose of this article is twofold: first, to set forth the fundamental metaphysical concepts of Indian religio-philosophical thought; and, second, to show how these concepts logically lead to the Indian views of time and history. Although there have been in India a variety of philosophical systems and associated religions, I shall concentrate on Advaita Vedānta and Mahāyāna Buddhism. The reason is to establish the interesting conclusion that, although these two systems are generally regarded as rivals, they both give rise to identical conceptions of time and history which may be characterized, for that very reason, as the Indian conceptions. I now turn to consider the fundamental concepts.

The central concepts of Advaita Vedānta are Brahman, *ātman*, *māyā*, ignorance (*avidyā*), *karman*, knowledge, and *mokṣa*. It is not suggested that other Indian systems do not share these concepts; some do and others do not, but we are not here concerned with them. (1) Brahman is the unchanging reality underlying the variety and multiplicity of phenomena. Brahman is eternal, unborn, uncreated, and immutable. Brahman is beyond names and forms and is not to be thought of as creator or God. Brahman is neither a He nor a She but is the It. (2) *Ātman* is the inmost Self of man. It is eternal, unborn, uncreated, and immutable and is not to be confused with the empirical ego whose distinguishing feature is constant change. Further, most importantly, *ātman* and Brahman are identical, that is, they are two different labels for one and the same ultimate reality (henceforth referred to as 'Brahman'). (3) *Māyā* is the power of Brahman by which It manifests itself as the phenomenal world. *Māyā* is beginningless and endless, being coexistent with Brahman Itself. It would be a serious mistake to construe this statement as implying that there are two ultimate realities, namely, Brahman and *māyā*, for *māyā* has no existence apart from Brahman. The Advaita Vedāntin also calls the phenomenal world *māyā*. Unfortunately, this has resulted in serious misunderstandings of the Advaita Vedāntin's position concerning the ontological status of the phenomenal world. By translating *māyā* as illusion and unreality, many a commentator has interpreted the Advaita Vedāntin as claiming that the phenomenal world is illusory and unreal. This is wholly unwarranted. The Advaita Vedāntin does not deny the phenomenal world or its reality. What he does deny is its ultimacy. Correctly speaking, then, for the Advaita Vedāntin reality is that which exists without depending on anything other than itself for its existence. In this sense, only Brahman is the reality while the phenomenal world, being dependent on Brahman, is not ultimate. Such nonultimate existence the Advaita Vedāntin describes as "neither real or unreal nor both," meaning thereby that it is neither ultimately real nor wholly unreal, illusory, and nonexistent. We may keep in mind here

R. Puligandla is Professor of Philosophy, University of Toledo.

is the principle of universal causality, according to which every event produces an effect(s) which in turn serves as cause(s) bringing about further effects, and so on. *Karman* is generated by ignorance, lack of knowledge of the nature of existence. *Karman* acquires a kind of psycho-moral continuity through rebirth. (5) Knowledge is of two kinds: the lower and mundane and the higher and supramundane, respectively known as *saṃvṛti* and *paramārtha*. The former, which is the product of the senses and intellect, is relative, governed by the opposition of identity and difference, and of limited validity. The latter is nonconceptual, nonrelative, and intuitive but is not opposed to the relative. Unlike the former, the latter is sotereological in that it affects a profound transformation of man, leading to blissful calm, wisdom, and freedom. (6) *Nirvāṇa* is freedom from ignorance and suffering. It is not something to be looked forward to after death but is attainable by man here and now by gaining insight into reality.

What views of time and history are implied by the above metaphysical concepts of Advaita Vedānta and Mahāyāna Buddhism? I shall now attempt to answer this question. Both Advaita Vedānta and Mahāyāna Buddhism regard the world of phenomena as marked by impermanence, manifesting itself as plurality, division, distinction, opposition, conflict, tension, pain, and suffering. The impermanent and fleeting nature of phenomenal existence is keenly felt by man in the inevitability of his own death. Death is the constant and climactic reminder of the inexorably painful and suffering-ridden existence of man as a phenomenal being. The king and the beggar, the mighty and the lowly, the patrician and the plebeian, are all powerless in the face of death and submit themselves equally to this unique and ineluctable existential indignity. Neither power nor glory, neither wealth nor learning, has any sway over the fear of death and death itself. With death constantly hovering over him ready to strike him down any moment, man becomes profoundly disturbed whether his own existence as well as that of his species has any meaning and significance at all. In search of an answer, he turns from one thing to another. What he finds is not an answer to this disquietude but only something which makes him temporarily forget the unalterable predicament by immersing himself in some activity or other, only to be later confronted with redoubled intensity of the everpresent menace of vanishing away. The Advaita Vedāntin and the Buddhist tell us that efforts to conquer suffering and death by means which are themselves an integral part of phenomenal existence, are doomed to failure, for such efforts betray a profound lack of understanding of the nature of phenomenal existence. What, then, is its nature? Phenomenal existence, according to Advaita Vedānta and Buddhism, is existence in the grip of the all-consuming temporality (*kāla*). In other words, everything that exists in time is, by the very nature of such existence, subject to change and decay. All attempts to overcome pain and

the celebrated rope-snake illustration of the Advaita Vedāntin as well as his observation that there can be no such thing as a pure illusion—every illusion is grounded in reality. (4) Ignorance (*avidyā*) consists of our thinking, on the one hand, that the empirical ego is ultimately real and, on the other, that our knowledge of the world obtained through senses and reason is the knowledge of ultimate reality. Ignorance, although beginningless, can be put to an end. The end of ignorance is the realization of the identity of *ātman* and Brahman and therewith of the nonultimacy of individuality characteristic of phenomena, including the empirical ego. (5) *Karman* is the state of bondage arising out of man's ignorance generated by his own thoughts, words, and deeds; through rebirth *karman* acquires a peculiar psycho-moral continuity. *Karman* can be exhausted and brought to an end by attaining the knowledge of ultimate reality through the realization of the identity of *ātman* and Brahman. (6) Knowledge and truth are of two kinds: the lower and the phenomenal (*vyavahāra*) and the higher and supraphenomenal (*paramārtha*). The first kind of knowledge and truth are the product of the senses and intellect; name and form are its warp and woof. Opposition, relativity, limited validity, and subratability are of the essence of such knowledge and truth. On the other hand, the higher knowledge and truth are not the product of the senses and intellect but of primordial intuitive insight into the nature of existence. Unity, nonrelativity, absolute certainty, and unsubratability are their distinguishing features. Such knowledge and truth surpass all distinctions and oppositions. More importantly, unlike the lower knowledge and truth, the higher knowledge and truth are sotereological, in that they bring about a total transformation of him who attains them. They bring to one peace, wisdom, and freedom. (7) *Mokṣa* is freedom from *karman* and bondage, which in turn is freedom from ignorance, attained through the knowledge of ultimate reality. Man can attain *mokṣa* here and now. He who so attains it is known as *jīvanmukta*, one who is absolutely free even while existing as part of the phenomenal world.

Turning now to Buddhism, we list the following as its basic metaphysical concepts: existence, suffering ('*duḥkha*'), 'ignorance' ('*avidyā*'), *karman*, knowledge, and *nirvāṇa*. (1) For the Buddhist, existence is pure flux, there being no eternal and unchanging entities either within or without man. It is craving (*tṛṣṇā*) which produces and sustains the illusion of such entities. For the Buddhist, then, existence is impermanence. (2) Being impermanence, existence is painful and is the source of suffering (*duḥkha*) of all kinds, physical, psychological, etc. The term *duḥkha* is to be understood, then, not in the sense of this or that suffering but as the impermanence itself of all existence. (3) Ignorance is not only the absence of knowledge of reality but also the holding of wrong views concerning it. It is ignorance that is the source of man's state of suffering, bondage, and unfreedom. (4) The Law of *karman*

death by means and methods that are themselves time-bound are destined to failure. It is only through knowledge that transcends everything which is characteristic of existence in time and which provides the insight into the ground of time-bound existence itself that man can conquer suffering, fear of death, and death itself and thereby attain immortality. That is, it is knowledge of the eternal ground and basis of phenomenal, temporal existence that emancipates man from the fetters and shackles of time. In short, man overcomes the pain and suffering of temporality by the knowledge of the eternal and timeless. According to Advaita Vedānta, Brahman is the timeless and eternal ground of the world; accordingly, it is the knowledge of Brahman which liberates man from the grip of time. But how does one know Brahman? Since, according to the Advaita Vedāntin, Brahman and *ātman* are identical, one knows Brahman by knowing the *ātman,* man's inmost Self. Similar considerations hold with respect to Mahāyāna Buddhism except that the liberating knowledge here is neither of Brahman nor of *ātman* but of the fundamental emptiness (*śūnyatā*) underlying all existence. Such knowledge is what constitutes *nirvāṇa,* the release from the pain and suffering of time-bound existence. It is worth pointing out here that although the Brahman of Advaita Vedānta and the *śūnyatā* of Buddhism differ in many respects, there are striking similarities between them. Both defy logic and language and are hence beyond all names and forms and can only be described in negative terms; and the knowledge of both is nonconceptual and intuitive. Further, both are nonrelative and absolute and are regarded as the ground of all time-bound existence, while themselves are timeless. More importantly, Brahman and the world of phenomena are *not* two different ontological realms. Quite the contrary, they are one and the same reality seen from two different standpoints, the higher and the lower. The phenomenal world, seen by penetrating through the veil of names and forms is Brahman; conversely, Brahman concealed under the veil of names and forms is the phenomenal world. In a similar manner, in Buddhism *saṃsāra* (the phenomenal world) and *nirvāṇa* (= *śūnyatā*) are one and the same reality, seen from the lower and the higher standpoints, respectively.

It is clear from the foregoing that, both in Advaita Vedānta and in Buddhism, time is of the essence of the phenomenal world. And since the phenomenal world has no independent reality, time too is not an independent reality. Time and the phenomenal world are the products of *māyā,* working through our senses, concepts, and imaginative constructions. Much like Kant, Advaita Vedānta and Mahāyāna Buddhism regard time as an a priori form of our sensible intuition, which is a presupposition of the possibility of experience of the phenomenal world. From the higher standpoint, time has no reality *of its own*; and since time is of the essence of the phenomenal world, the latter, too, viewed from the higher standpoint has no reality *of its own.*

To put it differently, both in Advaita Vedānta and Mahāyāna Buddhism, time is a secondary, dependent reality with no ultimate ontological status.

History is part and parcel of the phenomenal world, that is, of time-bound existence. We may include under the term history all varieties of history, celestial, geological, biological, and the specifically human. It is a truism that all history takes place in time (where else can it take place?). Time is the matrix in which history is embedded. But if time is devoid of any ultimate ontological status, then it follows that history cannot have any ultimate ontological status either. Like every other facet of the phenomenal world, history can only be a secondary reality. As such, the Advaita Vedāntin and the Mahāyānist warn us against the temptation of trying to gain liberating knowledge (knowledge of the ultimate, timeless, eternal reality underlying all phenomenal existence) through history, which bleeds like a wounded animal under the gnawing blows of time—its vicissitudes, the rise and fall of civilizations, human greed and misery, wars, plague, pestilence, death, and the ominous possibility of the extinction of the overcerebrated ape himself by weapons into the forging of which went a great deal of his skill and knowledge acquired over thousands of years.

What the study of history reveals to us is man in bondage, not man in his primordial reality. What history shows us is man in the state of ignorance, not the liberated man. As long as he labors under the illusion of the ultimacy of historical reality and seeks freedom through history, man will remain in ignorance and bondage. It is for this reason that the Indian tradition attaches only a secondary significance to history as well as its inner dynamic, namely, temporality.

It is time now to consider certain clichés which are stale and well-worn but are still very much in vogue and which are purported to be criticisms of the Indian position. Thus one often hears the charge that Indian thought teaches that the world of phenomena and, hence, time and history, are unreal and illusory. It is needless to document this charge, for one can find it by opening at random any Western work on Indian civilization, philosophy, and religion. Let it be first pointed out that such a criticism betrays a grave and deplorable ignorance of both Indian philosophical and religious traditions. I ask whether such a charge has any basis either in Advaita Vedānta and Mahāyāna Buddhism or in any other philosophico-religious tradition of India. Both Śaṁkara and the Mahāyāna philosophers teach us that the phenomenal world is neither illusory nor nonexistent. On the contrary, it is practical reality. But it is not ultimate reality, for only the undifferentiated, unitary Brahman, on which depends the phenomenal world, is the ultimate reality. Just as the unreality of the imaginary standpoint (*prātibhāsika*) can only be judged from the standpoint of the empirical (*vyāvahārika*), so also the unreality of the latter can only be judged from the standpoint of the ultimate

(*pāramārthika*). He who has not attained the ultimate standpoint has no business to declare that the empirical world is unreal.[1] Thus the criticism that Indian philosophies and religions teach that the world of phenomena is unreal and illusory is both unwarranted and false with respect to Advaita Vedānta.

Let us consider it now with respect to Buddhism. The Hīnayāna schools, far from holding that the world of phenomena is unreal and illusory, explicitly maintain that it is constituted of a certain number of *dharmas*, the ultimate elements of existence. The Mahāyāna, even in its most radical form, namely, the Mādhyamika school, does not claim that the empirical world is unreal and illusory. Quite the contrary, much like Advaita Vedānta, Mahāyāna distinguishes the lower and higher standpoints and teaches that the phenomenal world has relative reality and that our rational-scientific knowledge of the world provides us with truths which are certainly valid and efficacious within particular domains of empirical experience.[2] On the other hand, the higher truth is nonconceptual, nonrelative, intuitive insight into the *śūnyatā* of all *dharmas*. Where, then, one wonders, is the basis in Indian thought for the hackneyed criticism that India regards the world of phenomena as unreal and illusory? My answer: nowhere, except in the imagination of the critics.

1. Śaṁkara, *Sārīraka-bhāṣya*, II, 1, 14, ed. N. L. Shastri (Bombay: Nirnaya Sagar Press, 1927). Yady api svapnadarśanāvasthasya sarpadarśanodakasnānādikāryam anṛtaṃ tathāpi tadavagatiḥ satyam eva phalaṃ, pratibuddhasyāpy abādhyamānatvāt . . . na ceyam avagatir anarthikabhrāntir veti śakyaṃ vaktum, avidyānivṛttiphaladarśanāt bādhakajñānāntarabhāvāt ca.

2. Nāgārjuna, Mūlamadhyamaka Kārikā, ed. Louis de la Vallé-Poussin, Bibliotheca Buddhica IV (St. Petersburg, 1903), XXIV, 8, 9, 18; also see *Vigrahavyāvartlani*, ed., Pandit Rahul Sankrityayana, as an Appendix to the Journal of Bihar and Orissa Research Society, Patna, Vol. XXIII, 1937.

The Terror of Time

Richard Lannoy

The mysterious process that creates and sustains the great game of life is called *māyā*, a term pregnant with multiple meanings and itself the primordial matrix, the womb of time. It variously means: illusion, cosmic illusion, creative illusion, becoming, magic, art. The flux of *māyā*, recreating the 'many' and dissolving itself back into the primordial unity, or unmanifest condition of Brahman, constitutes the cosmic cycle. The phenomenal world is made of the same stuff as dreams; both are *māyā*. Creation is conditioned by time; everything is born only to die, for the life-urge not only contains the seeds of its own decay but also is magnetically attracted to the primal source. Man can reverse the outstreaming course of Creation rather as a space satellite which has escaped the earth's field of gravity can re-enter it and burn up in the atmosphere from whence it emerged. The Vedic sacrifices re-enact Creation in reverse, fusing multiplicity back into the primordial unity which centrifugal Creation had burst asunder.

'Life is sorrow,' as the Hindu says, but man must escape from the anguish of time. Suffering is a fact which must be dissociated from its connotation of *pain*; it arises from the instinctual libido, or 'desire'; it is but one part of a larger reality, the 'playfulness' of the divine itself. From the point of view of one who has freed himself from phenomenal existence (*māyā*), the whole of creation is seen as a paradisal vision, a state of divine play, in which he recaptures the innocent vision of the child. This does not mean that he is in a state of infantile regression, but that he recovers and has complete control over the child's spontaneity in a state of solidarity with the collective; he brings to an unformed, undifferentiated state a superior, agile awareness. In a normal state of mind the phenomenal world appears concrete, real, profane; only in an exalted state is it no longer what it had seemed to be—it is something *more* not less than real—it is magical, it is *sacred*. At such moments (in the rapture of the festival, for instance) the sense of time is annulled, the flux of life is no longer experienced as pain but as ecstasy.

It should now be possible to view the usual definition of *māyā* as 'illusion'

in its proper perspective. It does not mean that most Indians 'see life as unreal': Only in the metaphysical system of Advaita Vedānta is the world consistently viewed as completely *unreal*. For Sāṃkhya and yoga, the Upanishads, Jainism, Tantrism, Shaivism, and the southern schools of *bhakti*, *māyā* is *not* unreal but a cosmic *play*; the word 'illusion' is derived from the Latin *ludere*, to play. There is no need here to recapitulate the ideas and cultural manifestations implicit in the association of Indian religious thought with play, as they have been described in Part Three, but we can now see more clearly that it is the concept of *māyā* which integrates the *līlā*, in which men and gods participate, with the overall philosophical outlook. Finally, it should be pointed out that *māyā* should not be mistaken as an absurd and gratuitous illusion comparable with the existentialist view that all is Nothingness. Only when it is seen as divine play is the world of contingencies finally revealed as *sacred*. This discovery leads to feelings of bliss, not of anguish.

Obviously the term *māyā*, which covers the whole of phenomenal existence, has been interpreted in many different ways. Since it is temporality it must be sacramentalized, or melt into Great Time, the cyclical cosmic rhythm. Since *māyā* is a collective hallucination veiling transcendental Reality, Absolute Truth can be grasped by various spiritual exercises (*sādhana*) through which one wakes to full consciousness. This does not mean that *māyā* is the unconscious; it is much more than is usually meant by this term, although in one sense it does mean the dark, feminine, instinctive side of human nature, neither good nor evil. Its most ancient meaning of magic and deceit relates it to the primitive concept of the sacred as something so potent that it must be appeased by abject self-abasement. In fact Tantric Hinduism revalorized the archetypal figures of Shiva and Kālī to preside over the world of *māyā*. This mysteriously potent force also represents nature, matter, the primordial matrix, tricking man into maintaining false solidarity with the profane—a fatal and unholy liaison. But Hinduism never made the same mistake as the Manichee by identifying matter with evil or concupiscence. *Māyā* is not to be equated with *original sin*. Eyes that hitherto saw the profane world as a meaningless cycle of sorrow, once opened to a direct apprehension of reality, perceive that *māyā* belongs to the realm of awe, rapture, and the supernatural.

The influence of this concept of *māyā* is of incalculable importance to patterns of thinking today. It is positive in the sense that it expresses India's sense of the transience of life, of mutability, and that this provides solace to those who can look forward to nothing but suffering. It is negative in the sense that the brute facts of life are, in the final analysis, either illusory or of secondary importance and that nothing one does can alter them for the better. While *māyā* is therefore a consolation in the face of sorrow

because it implies that life need never be taken too seriously, it also serves as a rationale for apathy.

The concept of *māyā* is integrally related to the concept of Time—*Kāla*. Among the principal constituents of the mythic time concept, Éliade includes the return to origins, the prestige of beginnings, and the conquest of time. It is the first manifestation of a thing that is significant and valid. The Time of Origin, Sacred Time, or Great Time, is the 'receptacle' for a new creation. 'It is not enough to *know* the 'origin', it is necessary to re-establish the moment when such-and-such a thing was created. This finds expression in "going back" until the original, strong, sacred Time is recovered.'[1] According to the Indian temporal scheme, the 'prestige of beginnings' is most clearly asserted in the cyclical theory of creation of the World, its differentiation through the four successive *yugas*, till its destruction and re-emanation. In the First Age, or Kṛta Yuga, a classless, unified state of paradisal grace prevails, after which there is steady social degeneration until, at the end of the Kālī Yuga—the Age in which, it is believed, we are now—Kālī, goddess of destruction, dispeller of the fear of *Kāla*, brings the World to an end in a cosmic holocaust, after which the process begins all over again. Change is therefore a process of Perishing, not of Becoming.[2]

It is not unlikely that the ideal of the Kṛta Yuga, like the paradisal myth of Uttarakuru, originated from memories of tribal collectivist societies; moreover, a similar classless state figures in the legendary Śākadvīpa of the *Mahābhārata*, where the inhabitants are described as black. Hindu society was probably aware that the time sense of surrounding tribal societies was even more consistently non-linear than their own.

Ritual re-enactment of the cosmogonic myth, mysticism, yoga, art, and thought are the means of escaping from the outstreaming flow of Time and recovering initial plenitude.

The method is to cast off from a precise instant of Time, the nearest to the present moment, and to retrace the Time backward (*pratiloman* or 'against the stream') in order to arrive *ad originem*, the point where existence first 'burst' into the world and unleashed Time. Then one rejoins that paradoxical instant before which Time was not, because nothing had been manifested. We can grasp the meaning and the aim of this technique: to re-ascend the stream of Time would necessarily bring one back ultimately to the point of departure, which coincides with that of the cosmogony. To re-live one's past lives would also be to understand them and, to a certain degree, 'burn up' one's 'sins'; that is, the sum of the deeds done in the state of ignorance and capitalised from one life to the next by

[1] M. Éliade, *Myth and Reality*, London, 1964, p. 37.

[2] The Four Ages last 4,320,000 years, or *mahāyuga*; one thousand *mahāyugas* constitute a single day of Brahma, or *kalpa*, which is again multiplied in *mahākalpa* units.

the law of *karma*. But there is something of even greater importance: one attains to the beginning of Time and enters the Timeless—the eternal present which preceded the temporal experience inaugurated by the 'fall' into human existence.[1]

This retrospective modality is as fundamental as the non-sequential thought-process of which it is a part. It will be recalled that the Indian syllogism is the reverse of the Western: the notion of effect is formed first, and that of the cause is retrospectively inferred and stated afterward. *Phalahetu* means 'effect and cause'—in that order, not the other way round.[2] This does not imply that the effect is regarded as more important than the cause—on the contrary, the sentiment of impermanence, of uncertainty, of the transience of life as opposed to the 'prestige of beginnings' rules this out. The thought-process itself is retrospective, cyclical. When Indian Buddhist texts were translated into Chinese and Japanese, this retrospective structure of syllogism dismayed the scholars and was invariably reversed. The grammatical structure of Sanskrit is one example of a persistent tendency to assert the 'prestige of beginnings'; but Sanskrit semantics also reveal the same non-sequential bias and indifference to temporality of a linear order (but not, as many imagine, indifference to Time itself). For example, *parson* can mean either 'day after tomorrow' or 'day before yesterday', while *atarson* can equally mean 'three days ago' or 'three days from now'.[3] Temporal connectives and the dynamic relation of acts are seldom lineally articulated in Sanskrit grammar. A sequence of connected events, while it may be perceived lineally, is not valued in the same way as a *non-lineal pattern* outside history. *Karma* is lineal, a cumulative process which is a hindrance to the attainment of a goal of higher value—transcendence of 'effect and cause', transcendence of opposites. To escape from *karma* is to escape from Time.

Change does not increase the good; there is no such thing here as *progress*; value lies in sameness, in the repeated pattern of the known, not in novelty. What is good in life is exact identity with all past experience, and all mythical experience. Karma Yoga, the spiritual path of action, as distinct from the spiritual path of contemplation (Jñāna Yoga), is the antithesis of the Protestant work-ethic: no job, no labour, no drudgery should be performed for a reward outside the act. All work contains its own satisfaction. The present should not be regarded as a means to future satisfaction; the present is not evaluated in terms of its place within a course of action leading upward to a worthy end. In the West we see our history climactically; we plan our future experiences climactically, leading

[1] M. Éliade, *Myths, Dreams and Mysteries*, New York, 1960, p. 50.

[2] Cf. Hajime Nakamura, 'Time in Indian and Japanese Thought', in J. T. Fraser (ed.), *The Voices of Time*, Allen Lane, London, 1966, p. 84.

[3] Ibid., p. 81.

up to future satisfaction or meaning, and to fulfilment through pursuing a *career*. In India, action is a series of anti-climactic masquerades. This particular time-sense is nowhere more clearly demonstrated than in the ideal of anti-climactic sexual pleasure, attained through prolonged temporal diffusion of sensation, which does not end in orgasm (and from which the technique known as *carezza* derives). It was shown in Part One that the plot of Sanskrit drama is anti-climactic, while the presentation of narrative in the art of fresco painting is based on accentless simultaneity.

The ethical implications of non-sequential logic are of considerable importance. In a brilliant analysis of the contrast between the non-lineal Trobriand concept of reality and Western linearity, Dorothy Lee writes:

> Our conception of personality formation, our stress on the significance of success and failure and of frustration in general, is based on the axiomatically postulated line. How can there be blocking without pre-supposed lineal motion or effort? . . . If the undertaking is of value in itself, a point good in itself and not because it leads to something, then failure has no symbolic meaning; it merely results in no cake for supper, or less money in the family budget; it is not personally destructive. But failure is devastating in our culture, because it is not failure of the undertaking alone; it is the moving, becoming, lineally conceived self that has failed.[1]

This does not mean that a society with a similar non-lineal value system, such as India's, is wholly free from frustration and alienation—a matter which will be examined at the end of Part Five, Chapter One—but Dorothy Lee's contrast between the two systems goes a long way towards explaining in human terms the implications of India's ahistorical outlook and non-developmental time-sense.

The Indian cyclical concept of continuous change is associated with the wheel, or *chakra*—the perfect shape with the focal point of the universe situated at its centre in mysterious stillness. A classical metaphor for defining *māyā* is the Wheel of Fire—an apparently continuous circle of fire made by a whirling torch, representing also the continuity of time and moving events by the whirring succession of *kṣaṇa*, or atomic instants. The weapon of Vishnu is a whirling fire wheel (upper right hand in Plate 34), Shiva in his destructive aspect is ringed with a fire wheel, and the solar wheel figures prominently in Vedic, Brahman, and Vaishnava symbolism (Plate 39). Even more important are the Buddhist Wheel of the Law and the Wheel of *Saṃsāra*, or wheel of existence. In the *Bhagavad Gītā* the Lord 'causes all beings to revolve by His divine deluding power [*māyā*] as if they were mounted on a wheel' (18.61). The word for wheel here is *yantrarudha*, an implicit reference to the *noria*, a wheel provided

[1] Dorothy Lee, 'Lineal and Nonlineal Codifications of Reality', *Psychosomatic Medicine*, 12 May 1950.

with buckets for the irrigation of fields, one of the most important inventions which India gave to the world.[1] This direct association of cyclical time with man's efforts to preserve the ecology in a state of balanced equilibrium is most significant. For it is in this conjunction of proto-scientific knowledge of irrigation and the philosophical idea of continuous change, of the *noria* and the ethics of the *Gītā*, that the idea of perpetual motion acquired heuristic value. Lynn White, an authority on medieval technology, is of the opinion that in India, 'the idea of perpetual motion was entirely consistent with, and was perhaps rooted in, the Hindu concept of the cyclical and self-perpetuating nature of all things'.[2] The *Āryabhaṭīya* of the great mathematician Āryabhaṭa (written in A.D. 499) is the first text which refers to an invention peculiarly characteristic of the Indian mind—the perpetual-motion machine: 'One should cause a sphere of light wood, equally rounded and of weight on all sides, to move in regular time by means of quicksilver, oil, and water.' The next reference appears in the *Sūrya Siddhānta*, which claims that by the application of water (presumably with the aid of a wheel) 'a knowledge of time will be gained by the diligent'. The philosophical context here is important when we turn to the last reference, the *Siddhānta Śiromaṇi*, written by the extraordinary mathematical genius Bhāskara in A.D. 1150. Bhāskara (who was the first Indian scientist to prove that zero was infinity) describes in some detail how to construct a perpetual-motion machine by secretly filling the rim of a wheel with quicksilver. It is evident that Bhāskara's quicksilver wheel was meant as a device for displaying the magical power of the scientist working in harmonious unity with the energies of nature, and to provide a graphic demonstration of life as a process of continuous change. 'It may very well not be fanciful', Joseph Needham comments on the Indian fascination with perpetual motion, 'to seek the ultimate origin or predisposition of the Indian conviction in the profoundly Hindu world view of endless cyclical change, *kalpas* and *mahākalpas* succeeding one another in self-sufficient and unwearying round. For Hindus as well as Taoists, the universe itself was a perpetual-motion machine.'[3]

Bhāskara's quicksilver wheel is a uniquely Indian product of the aesthetically oriented creative imagination which seeks to harness and to balance

[1] In their translations of the *Bhagavad Gītā*, both Hill and Zaehner follow Shaṅkara's suggestion that a comparison with wooden puppets whirling on a machine may be meant; Indian puppets, however, are not mounted on wheels. Zimmer's translation of the passage (Zimmer, 1951) includes the gloss: '*yantrarudha*: e.g. on a wheel provided with buckets for the irrigation of a rice-field', i.e. what is technically called a *noria*, formerly 'Persian wheel'. Lynn White, Joseph Needham, and others no longer believe that the *noria* was invented, as was thought earlier, in ancient Egypt, but almost certainly in India.

[2] L. White Jr., *Mediaeval Technology and Social Change*, Oxford, 1962, p. 130.

[3] J. Needham, *Science and Civilisation in China*, Vol. 4.2, Cambridge, 1965, p. 540.

the forces of nature. But it is of larger historical consequence, as White and Needham show. For the *Siddhānta Śiromaṇi* was translated into Arabic a few decades after it was written and found its way to Europe by A.D. 1200, where the quicksilver wheel appeared soon after, in almost identical detail, in the sketchbook of Villard de Honnecourt, setting in train a spate of research into perpetual motion which 'deeply influenced modern scientific thought at one of its most crucial early stages'.[1] We may conclude by saying that the aesthetic concept of cyclical time, which in India assumes a highly playful, paradoxical character, need not necessarily end in sterile circular argument but, under certain conditions, can spark off a dynamic creative movement.

This is why the concepts of *māyā* and cyclical time are so important in understanding the Indian attitude towards history and the problem of social responsibility. Contrary to the Islamic and Judaeo-Christian traditions, history has no metaphysical significance for either Hinduism or Buddhism. Professor Éliade states the archaic principle very clearly: 'Profane time must be abolished, at least symbolically, so that man forgets his "historical situation".' The highest human ideal is the *jīvanmukta*—one who is liberated from Time. Man, according to the Indian view, 'must, at all costs, find *in this world* a road that issues upon a trans-historical and atemporal plane'.[2] The whole purpose of life is to pierce the veil of ignorance (*avidyā*) blinding him to the nature of ultimate reality. The quest for immortality and the overcoming of death involves the seeker in active flight from climactic history and the developmental flow of time. A majority of Hindu ceremonies and rites are primarily concerned with the initiatory pattern of 'death and rebirth' into another mode of being. Various kinds of irrational or emotional states, trances, ecstatic or orgiastic rites, all transport the seeker into the realm of the timeless. On the social plane, as we have seen, *karma* and *saṃsāra* are an essential element in the ideology of the caste system and reflect the same basic desire for release from the anguish of history, the terror of irreversible time.

The prolonged period during which India's economy was linked with the system of non-commodity-producing village communities, low productivity, restrictive social organization, conformist religious thought, and immediate sensory experience of simultaneous, non-sequential relations, certainly contributed to the endurance of this concept of cyclical time even in modern times. This very marked (and deeply felt) indifference to the Western concept of history and of man's incapacity to change it is far more consistent than in most other civilizations, including the Chinese and the Islamic. The durability of the cyclical-time concept at the most advanced

[1] J. Needham, *Science and Civilisation in China*, Vol. 4.2, Cambridge, 1965, p. 542.

[2] M. Éliade, *Yoga, Immortality, and Freedom*, London, 1958.

levels of Hindu metaphysical thought makes this indifference to what we would call history one of the distinguishing traits of the Indian cultural tradition. In merging with the collective lies the hope of magical transformation, the ecstasy of Oneness, or absorption of all in the All. There is no room in this scheme for the modern idea that man is the subject and agent of *history*; there is no admission of the possibility of ameliorating the human condition, nor confidence in the ability to master a hostile environment. On the other hand, the cyclical-time concept, 'return to Origins', and mythical ideal of the Kṛta Yuga, Uttarakuru, and Śākadvīpa do not altogether rule out the millennialist concept of history, which is to be found in different form at the root of Judaeo-Christian messianic ideology and even of Marx's classless society.

Widespread nostalgia for the past, and dreams of India returning to a mythical golden age, are not just signs of Indian complacency at the fact that it has a great past, or simple manifestations of national pride; they are built into the very fabric of religious belief, as they once were in Christian Europe. Even today, when India has become familiar with the idea of historical studies and produces able historians, the underlying desire to study India's history and culture is often unconsciously motivated by the longing to be restored to paradisal innocence in some supposedly Golden Age. As can be seen from the collectivist movements of the twentieth century, millennialist mythology can be used as a potent source of appeal with which to arouse the masses.

Creative intellects were plainly not interested in the kind of historical concerns familiar to the West since Herodotus. But the idea that 'Indian society has no history at all', as Marx asserted, is a gross over-simplification. The rarity of accurate records merely makes it more difficult to reconstruct history. We can at least be sure of one point—the ascendancy of the social order over the political system; there is no doubt that, since the individual cannot essentially alter the course of history, acquiescence in the hierarchy of power and wealth, and legitimization of ambitious war-lords as quasi-divine protectors of the millennialist *dharma*, form an integral part of this attitude towards and desire to escape from the terror of time, to preserve the immediacy of a non-sequential unified-field awareness. The next chapter is devoted to the consequences of this attitude on ethical and political ideas.

Time [in Nyāya-Vaiśeṣika]

Sadananda Bhaduri

I. The Proof of Time: the Nyāya-Vaiśeṣika View

The problem of time presents itself under many aspects, no two of which are entirely independent. When, for instance, we proceed to discuss the question, "How is time known?", we at once set to ourselves the associated question, "Why does time make itself knowable in the way in which it is known?" If time exists, it exists to serve a definite purpose in the scheme of reality, and not merely 'in an obscure way', as Aristotle suggests. Any adequate proof of the existence of time must therefore be also a proof of its exclusive capacity to exercise a specific function. Let us examine the position from the Nyāya-Vaiśeṣika standpoint.

Time is conceived in the Nyāya-Vaiśeṣika system as a unique, all-pervading and eternal substance. It is the static background against which events happen and from which they derive their chronological order. It possesses no specific physical quality like colour and thus cannot be an object of external perception. Neither is it perceivable internally, for the mind has no jurisdiction over external or non-psychical objects independently of a physical sense-organ. The question naturally arises: What is the source of our knowledge that time exists? The Vaiśeṣika answers that the knowledge of time is arrived at by a series of inferences. The notions of priority (*paratva*) and posteriority (*aparatva*), of simultaneity (*yaugapadya*) and succession (*ayaugapadya*), and of quickness (*kṣipratva*) and slowness (*ciratva*) constitute the grounds (*liṅga*) of inference of the existence of time.[1]

We propose, first of all, to discuss how time is inferred as the condition of our notions of priority and posteriority. Our initial task in this connection is to determine the exact

[1] VS., II. ii. 6; PPBh., p. 63.

meanings of these terms. If priority is taken to imply the lapse of a larger amount of time, and posteriority that of a smaller amount, then there will be neither scope nor necessity for the inference of time at all, as the notion of it is involved in that of the logical ground. The Vaiśeṣika has therefore thought it necessary to explain the notions of priority and posteriority independently of reference to time. According to him, priority or posteriority is a quality which every generated substance possesses by virtue of its relation to a relatively large or small number of revolutions of the sun. In other words, when we say that an individual, *A*, is *prior* to another, *B*, which is the same thing as to say that *B* is *posterior* to *A*, we really mean that *A*, a contemporary of *B*, has been connected with a larger number of solar revolutions than *B*.[2]

It is, of course, true that the solar revolutions, through connection with which *A* is perceived as prior and *B* as posterior, are themselves unperceivable. But that does not affect the Vaiśeṣika position. The fact is that solar motion is a well-known phenomenon of nature and is found to be spontaneously presented as a qualifying element (*viśeṣaṇa*) whenever we perceive an individual as prior (*i.e.*, senior) or posterior (*i.e.*, junior) to another. For, if at any time *A* is judged as prior to *B*, the obvious implication is that *A* is felt as having passed through a larger number of days than *B*, and days are intelligible only in terms of complete revolutions of the sun round the earth.[3]

But how can *A* (or *B*, or, for the matter of that, any other individual) be connected at all with solar motion and be qualified by it? No direct connection through the relation of inherence (*samavāya*) is possible between them, as the motion of the sun inheres in the sun and, as such, is connected with it alone. Nor can there be a relation of conjunction (*saṃyoga*)

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[2] NVTT., II. i. 39, p. 280 KV., p. 114.

[3] *Vide* NLVK., p. 284.

The Vaiśeṣika case apparently rests on the old astronomical tradition which assumes that the earth is a static body and that the sun takes one full day to go round it once.

between *A* and the revolving sun, which are widely separated finite substances. But the notion of priority or posteriority, as we have already seen, implies a connection between *A* and solar motion. As direct connection is out of the question, the two terms should be supposed to be related only indirectly through something forming the connecting link. The Vaiśeṣika suggests that the simplest way of explaining this indirect relation would be to suppose that *A* is in conjunction with something which is in conjunction with the sun in which its motion inheres.[4]

Now, what is this *something* that brings an individual and solar motion into relation? It must be a substance, which alone can be in conjunction both with the individual and with the sun in which its motion inheres. It cannot be a substance of limited magnitude, because such a substance cannot be connected with all things, of which priority and posteriority are found to be determinations. So it must be a substance which is in connection with all finite substaces ; in other words, it must be a ubiquitous substance. But *ākāśa* and the soul, though ubiquitous, cannot serve as the connecting link. It is essential that the required ubiquitous substance should not only be in contact with the individual and the sun, but also have the capacity to relate the individual with the motion of the sun. In other words, it must bring one finite substance into relation with the property of another substance. Neither *ākāśa* nor the soul has this capacity. If *ākāśa* had it, it would be possible for a particular impact, producing sound in one drum, to be transmitted to other drums and to produce sound therein, because *ākāśa* is connected simultaneously with all drums. If, again, the soul, which is in contact with all finite things, were in a position to produce the required relation, substances would be enabled to acquire new properties in a most confusing manner, and the fragrance of sandal would be perceived in gold, and the yellow colour of gold in a white lily. The

[4] The relation is expressed as *svasaṃyuktasaṃyuktasamavāya, i.e.,* inherence (of motion) in a substratum which is in conjunction with something which is in conjunction with the individual in question.

obvious absurdity of the position shows that the mere conjunction of two substances with a third does not ensure any relation between one of the two substances and the property of another. But in the present context, priority and posteriority just imply such a relation. When, therefore, a direct relation is impossible for obvious reasons and when even the two known ubiquitous substances, *ākāśa* and the soul, are found to lack the capacity for producing an indirect relation, there is a clear case, argues the Vaiśeṣika, for positing a special substance which alone can achieve this result. And this special substance is given the name of time.[5]

It may, however, be urged that, if time is supposed to possess the capacity for instituting a relation between the property of one substance and another substance; then there is nothing to prevent it from producing a confusion of qualities in substances—a consequence which has been held out as a bar to the attribution of a similar capacity to *ākāśa* and the soul. Consistency of reasoning demands that time also should be denied this capacity for miracle ; and so the postulation of time is not warranted by an inescapable logical necessity. The answer of the Vaiśeṣika to this objection is that the existence of time as the cause of an indirect relation between solar motion and an individual substance is proved by the *reductio ad absurdum* of the other possible causes. The peculiar capacity of time to produce the relation in question is thus established by the same argument which proves the existence of time itself as an additional substance. Moreover, the capacity is inferred as strictly restricted to the production of an individual's relation with a specific action, *viz.*, solar motion. There is, therefore, no possibility of a promiscuous exchange of properties among substances through the medium of time.[6]

It appears that two alternatives are open to the opponent, *viz.*, either to deny the validity of the considerations which necessitate the assumption of a ubiquitous medium through

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[5] KV., pp. 115-16; NLV., pp. 290-291.
[6] KV., p. 116; KVBh., p. 138.

which solar motion may be related to any individual, or to suppose that some ubiquitous substance other than time may function as the required medium. We have seen that neither of these alternatives is possible. The logical necessity for postulating time as an additional substance, therefore, remains unshaken.

Likewise, the concepts of simultaneity and succession, and of quickness and slowness are the logical grounds for the inference of time. Simultaneity connotes the relation of two (or more) events to a particular solar motion, and succession implies such relation to two (or more) different solar motions. Quickness or slowness of an event is also to be understood as determined by the relation of the event to a smaller or larger number of solar motions.[7] As none of these relations is possible without the intervention of time, the concepts in question constitute the logical ground for the inference of time.

We have seen that the Vaiśeṣika does not believe in the direct intuition of time and is thus under the necessity of proving the existence of time by means of inference. The ground of the inference in question is the notion that solar motion and an individual are related. It has been found that this relation is possible only through a special substantial ubiquitous medium, which is time. Thus it is time that constitutes the relation between solar motion and the individual concerned. When, therefore, we say that *A* is temporally prior to *B*, we are supposed to affrm that *A* is related through the medium of time to a larger number of solar revolutions than *B*. Now the question is: Can this relatedness of *A* or *B* to solar motion be understood without a previous knowledge of the relation? If the knowledge of relation (*sambandhapratīti*) be the *conditio sine qua non* of the knowledge of relatedness (*viśiṣṭapratīti*), then the notion of time should be supposed to be already present as a necessary element of the concept of relatedness. And, if, again, the notion of time *quâ* relation be reached as a conclusion from the premiss of relatedness, there

[7] NVTT., II. i. 39, p. 281; KV., p. 117.

is clearly a case of circular reasoning (*itaretarāśraya*). The knowledge of relatedness presupposes the knowledge of time *quâ* relation, and the latter, again, is shown to presuppose the notion of relatedness as its logical ground.[8]

Udayana however observes, in reply, that the difficulty would be really insuperable if the premiss, *viz.*, that the knowledge of relation is the condition of the knowledge of relatedness, were true. But the fact is that the notion of relatedness presupposes the *existence* of a relation, and *not* its articulate *knowledge*. The terms in relation are directly felt as related, and thus the idea of relatedness arises independently of the knowldege of relation.[9] If this principle were not admitted, some of the common perceptual judgments would be impossible of explanation. In the judgment, for instance, 'Water is cold' or 'Water flows' or 'Water is a substance', the predicate, *viz.*, coldness (quality) or flow (action) or substancehood (universal), is perceptually related to the subject, *viz.*, water. In other words, water is actually perceived as qualified by what is predicated of it. But the relation subsisting between water and its coldness or flow or substancehood is one of inherence (*samavāya*), which, according to the Vaiśeṣika, is not amenable to perception.[10] It thus follows that the imperceptibility of the relation between two terms does not stand in

[8] KV., p. 117; KVBh., p. 140.

[9] *Ibid.*

[10] The Vaiśeṣika does not accept the Nyāya view that the relation of inherence is an object of perception. A relation, it is asserted, cannot be perceived unless the terms are perceivable. Inherence accordingly is an unperceivable relation, as it is found to subsist even between admittedly unperceivable terms, such as time and its oneness, or mind and its movement. The fact that perceivable terms (*e.g.*, sugar and its sweetness or whiteness) may also be related by inherence does not affect the position. For inherence, according to the Vaiśeṣika, is a unitary relation; it is the same in all its incidences, whether its terms are perceivable or not. It does not undergo any change in its nature even though the terms may vary from case to case. Inherence, therefore, is bound to remain unperceivable under all possible conditions. *Vide* Din., p. 263 and RR., p. 263.

the way of the perceptual knowledge of the terms as related. A judgment, therefore, affirms or denies, as the case may be, the relatedness of the terms, and not the relation between them. The knowledge of the relation is arrived at by consideration of the impossibility of relatedness in the absence of a factual relation. So the charge of arguing in a vicious circle is based upon a wrong premiss. Time as a fact remains unknown before it is inferred as a relating principle, and it is inferred as a relating principle only when the perceived relatedness of solar motion to an individual cannot be explained in any other way.

The method of inference of time we have discussed so far was suggested for the first time by Vācaspati, and adopted later on by Udayana and other Vaiśeṣika writers. Śrīdhara, however, appears to have realized the futility of any attempt to explain the notions of priority, posteriority, etc. by reference to solar motion. The question of relating solar motion to the temporally determined things presents difficulties which, in his view, are insurmountable. The postulation of an indirect relation through the intervention of a *tertium quid*, and calling this intervening factor time, evidently, did not appeal to him. He, therefore, suggested a different approach to the problem of inference of time. We give here an analysis of his arguments to prove the existence of time.

The notions of priority, posteriority, etc. are determinate subjective phenomena, and their emergence can be explained only on the supposition of their being causally related to a specific objective ground, and this is time. Time, therefore, is to be inferred as the cause of certain notions which are found to be associated with events, and which cannot be explained otherwise.[11]

Time is also presupposed in the operation of the causal principle. An eternal entity like *ākāśa* is uncausable because it is *never non-existent*, which means that it is timelessly existent. An absolute nonentity like a square circle is equally uncausable because it is *ever non-existent*, which means that

[11] NK., p. 64.

it is timelessly non-existent. Causation, therefore, is possible only in the case of an event which is contingent (*kādācitka*), *i.e.*, which comes into being after having been *previously non-existent*. In other words, previous non-existence, which is intelligible only in the sense of a temporally determined non-existence, transpires to be the necessary condition of the production of an event. If, therefore, there were no time, there could be no *happening*, and things would either merely exist or not exist at all. Causality, thus, is found to be inexplicable without reference to time.[12]

The notion of time is also derived from our experience of change. Material bodies, whether inorganic or organic, are found to pass through successive states and modifications. And this can be explained only on the supposition that it is time that makes a difference to the bodies and helps their development or decay. When an old man is seen to possess physical peculiarities different from those of his young son, the contrast inevitably points to a difference in physical change, and time is inferred as the cause of it.[13] In all such cases, the changing substances are supposed to be in direct connection with time, for on no other hypothesis can change be explained.

Vallabha has discussed the orthodox Vaiśeṣika view of time, but has characterized it rather disparagingly as old and conventional (*cirantana*). He offers a proof of time, which, he claims, embodies an original (*abhinava*) approach to the problem.[14] The basis of the notion of time, according to him, is the knowledge that something actually exists. The propositions, 'The table exists', 'The pen exists', 'The book exists', etc., in spite of the variety of their subjects, *uniformly*

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[12] *Ibid.*, p. 65.

[13] *Ibid.* A similar argument occurs in Patañjali's *Mahābhāṣya* (II. ii. 5) where it is stated that it is because of time that bodies are found to undergo quantitative changes (*yena mūrtīnām upacayaś cā 'pacayaś ca lakṣyante sa kālaḥ*).

[14] NLV., p. 293. Vallabha's claim to originality cannot be accepted. He simply elaborated a theory which had been adumbrated by Vātsyāyana. *Vide* NBh., II. i. 41.

convey the idea of something being existent or *present*. These are, therefore, essentially time-propositions. Time, thus, is the invariable determination of any term to which the verb 'to exist' in the present tense may be applicable. 'Existentness' (*vartamānatā*), in other words, implies purely a temporal characteristic.[15]

Vallabha's conclusion is based upon a critical examination and rejection of some of the possible interpretations of the term 'existentness'. The term, he points out, cannot connote what is called isness (*astitva*). 'A thing *is*' implies that the thing has an individuality, *i.e.*, a unique intrinsic nature (*svarūpa*); in other words, a thing's isness is the thing itself. Isness has therefore different meanings in different propositions according as the subject varies. Existentness, on the contrary, is found to be predicable in one unequivocal sense of all individually varying reals. Nor can it be contended that 'a thing exists' would mean that the thing participates in the existence-universal (*sattāsāmānya*), for, in that case, existentness could not be predicated of a universal, negation, etc., *i.e.*, of such categories of reality as are, by their very nature, excludent of a universal (*niḥsāmānya*). But there appears to be no ground for dismissing as nonsensical any statement to the effect that a universal *exists* like any particular that participates in it, or that the negation of a thing *exists* wherever and whenever the thing is absent. Nor can existentness be interpreted as the condition in which post-non-existence has not yet occurred and pre-non-existence has already ceased. Since non-existence is intelligible only in relation to a specific negatum (*pratiyogin*), the negation of pre-non-existence and post-non-existence in any particular case cannot refer to anything distinct from the individuality of the negatum itself. But individuality, as we have seen, is a variable concept, while existentness is common to all individuals.[16]

It may be suggested that the existentness of a thing means nothing more than that the thing possesses causal efficiency

[15] NLV., p. 310.

[16] *Ibid.*, pp. 310-311

(*kriyājananayogyatva*). But causal efficiency is not an indeterminate fact; it is intelligible only in the sense of the specific capacity of a particular thing to produce a particular effect. Causal efficiency thus transpires to be identical with the intrinsic nature or individuality of the thing of which it is predicated. It is, therefore, bound to vary from individual to individual, so that we have the old difficulty over again. Moreover, it cannot be said that the existent alone can be a cause. For even what is no longer existent and what is yet to be existent are not devoid of causal efficiency. The actually existent is always found to be due to a cause that has ceased to exist. And our present activities are often undertaken with a view to achieving advantages that will follow from the conditions which are not yet existent but which we want to produce through those activities. Thus the attempt to define existentness in terms of causal efficiency results in the obliteration of all distinction between the existent or the present on the one hand, and the past and the future on the other. Nor can any improvement be made upon the situation by defining existentness as the nature of a thing actually associated with an effect (*kāryopahita*). For this would imply that the existent is invariably an active cause—and not merely a potential (*svarūpayogya*) one—a cause which is actually concomitant with the effect brought into being by its activity. The definition serves, no doubt, to eliminate the past and the future, which are obviously not actually associated with the effects they are capable of producing. But it fails to represent the true nature of existentness, which is found to be independent of any reference to association with an effect. Our perception of a mass of gold or a lump of clay, for instance, as something which *exists*, is not dependent upon the knowledge of the effect, say a jar, which is produced from it.[17]

It appears that the existentness of a thing cannot be explained by reference to its intrinsic nature, causal or non-causal. Existentness, which is the same thing as presentness,

[17] *Ibid.*, pp. 311-312; also NLVK., p. 312.

should therefore be understood as an extrinsic determination, and this determination is called time. Time, like the relation of inherence, is one and self-identical in all its countless incidences. The diversity of individuals qualified by it does not introduce any diversity into its nature, since existentness is felt as common to all of them.[18]

2. Is Perception of Time Possible?

The Bhāṭṭa Mīmāṃsaka maintains that time is an object of perception. If time were not immediately given in experience, such characteristics of events as slowness, quickness, coexistence, succession, etc. would never come within our perception. Since these perceived determinations of events necessarily involve a direct reference to time, it must be held, argues the Mīmāṃsaka, that time is invariably presented as a qualifying element (*viśeṣaṇa*) in our perception of events.[19] The attempt of the Vaiśeṣika to explain away these obvious time-determinations by reference to solar motion is not faithful to the plain verdict of experience.[20] In fact, the necessary accompaniment of the notion of time with all our perceptions can be explained satisfactorily only on the hypothesis that time itself is directly perceived. There is no validity in the contention that time is not amenable to perception because it lacks sensible colour (*udbhūtarūpa*). Such a contention is an example of the fallacy of universalizing a rule which is found to be true in a limited field. In fact, it is a matter of accident that some perceptual data possess sensible colour and others do not. The Vaiśeṣika himself has to admit that the quality of colour (*rūpa*), though devoid of colour, is visually perceived, and that atoms are infra-sensible in spite of the presence of colour in them.[21] The fact is that a law must be in harmony with facts ; it cannot

[18] NLV., p. 312.

[19] NM., pt. I, p. 124; *Nyāyaratnākara* on SV., *śabdanityatādhikaraṇa*, verse 303; MM., p. 79.

[20] The criticism does not evidently apply to Śrīdhara's method of inference of time.

[21] NM., pt. I, p. 124.

contradict or supersede them. The perception of time in spite of its colourlessness is a fact of experience and cannot therefore be invalidated by any law. So the Mīmāṃsaka concludes that time is always a perceived determination of the empirical data. It is, of course, true that time is not perceived by itself, independently of a concrete filling. But that does not prove its imperceptibility. For time, by its very nature, is perceivable only as a qualification of a sensible object. If nothing can be perceived except in time, time also cannot be perceived if it is 'devoid of all sensible content'.[22]

It may be observed here that Nāgeśa, the grammarian philosopher, also holds that a span of time is perceivable by all the six sense-organs (*ṣaḍindriyavedya*).[23] An object is felt as *present* when it is *presented* to the senses. In other words, our normal perception of an object is invariably associated with the conviction of its presentness, which is, obviously, a time-determination.[24] Nāgeśa, therefore, concludes that an object can be *presented* to an appropriate sense only as a *present* event, and that the time-determination of the event is as much an object of sense-perception as the event itself.

From what has been said above, it will be clear that the Mīmāṃsaka anticipates and utilizes the substance of Kant's argument in so far as it can be employed to show that the notion of time is not arrived at by a process of ratiocination. The Kantian view that "only on the presupposition of time can we represent to ourselves a number of things existing at one and the same time (simultaneously) or at different times (successively)", seems to be in some measure a reaffirmation of the Mīmāṃsā position. It must, however, be noted that the agreement between the two views does not go beyond the admission of the *givenness* of time as a necessary element in all our experience. The Mīmāṃsaka, like the Nyāya-Vaiśeṣika, is a thorough-going realist and believes in the *objective* existence

[22] SD., p. 139; NM., pt. I, p. 124.
[23] VSLM., p. 849.
[24] *Kuñjikā* on VSLM., p. 850.

of time, which Kant denies. Time, according to Kant, is neither an actually existing substance nor an objective determination of such a substance; it is only one of the forms of intuition. It is not a thing experienced, but, as a subjective condition of all our experience, it is given *a priori*. In itself and apart from the subject, time is nothing at all. The Mīmāṃsaka realist does not accept this position. He is emphatic in his assertion that time is a substantive real existing in its own right. He does not believe that the subjectivity of time necessarily follows from the apodictic certainty of the dictum that things cannot be known except in time. As a matter of fact, the acceptance of the dictum is not incompatible with the objective reality of time. It cannot be denied that time is invariably presented as a real and objective determination (*viśeṣaṇa*) of events perceived by us.[25] To take one element in the perceptual act, *viz.*, time, as a subjective form, and the other, *viz.*, the event, as an objective fact, is certainly to misrepresent the contents of perception. In fact, Kant himself admits the empirical reality or objectivity of time in relation to all objects that are capable of being presented to our senses. But here also Kant seems to be inconsistent; for he says that time is pure (non-sensuous) intuition and makes sensuous perception the test of empirical reality. It is inconceivable that a pure form of intuition should have anything to do with sensuous perception.

As regards the Mīmāṃsaka's position that time is a perceptual datum, the Vaiśeṣika maintains that it is untenable, inasmuch as it fails to recognize the limitations of perception as a source of knowledge. The time that is supposed to be immediately perceived is limited. The specious present, or, for the matter of that, any directly perceived time-division, has a fairly well-defined span.[26] But time *per se*, which is the object of philosophical speculation, is infinite and eternal. Such time is never an object of perception. Again, simultaneity and

[25] NM., pt. I, p. 124.

[26] *Idānīm ityādyakhilavyavahārāṇāṃ khaṇḍakālamātraviṣayatvāt*, *Kalā* on VSLM., p. 851.

succession, and also priority and posteriority, as perceived determinations of events, refer only to the arrangement and relatedness of those events in the "time-setting". What we are immediately aware of in these cases is not time as it really is, but certain extrinsically determined temporal modes as adjuncts to events. But real metaphysical time is a unitary, infinite, undivided whole. It would exist even if all events were abstracted from it ; it transcends all its empirical delimitation and diversification. It never comes within our sensuous experience. We can only infer its existence as the common objective ground of all the perceived temporal qualities of events. It is natural, therefore, that the Vaiśeṣika should refuse to take the apparent *primâ facie* verdict of perceptual experience at its face value, with regard to time.

Śrīdhara, however, has pointed out that time, though unperceivable, can enter as a qualifying element into a perceptual judgment, *e.g.*, 'I see the table *now*'. Here time, which is known originally through a process of inference, is found to be associated with a perceived object as a qualification (*viśeṣaṇa*) of it. There is no psychological absurdity in such an association, for it is the same subject that infers time and perceives the temporally qualified object. A similar association between unpresented and presented elements is admitted in the case of the perceptual judgment, 'I see a fragrant rose'. Here a rose actually presented to the visual sense is apprehended as qualified by the fragrance previously experienced in another rose with the olfactory sense.[27] So it comes to this. Though the knowledge of time as such is always inferential, the association of the time-quality with perceived objects partakes, to all appearances, of the character of perception. The argument of succession, simultaneity, etc., employed to prove the objective reality of time, has its necessity and utility with regard to an opponent who elects to repudiate time as an objective fact.[28]

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[27] NK., p. 65.

[28] *Ibid.*

3. The Reality of Time and its Determinations

Empirically we speak of three times—past, present and future—rather than of one. The Vaiśeṣika points out that in this threefold time we see its derivative nature. All three depend on the existence of something else. Let us examine how it is so.

Time, according to the Vaiśeṣika, is really one infinite and indivisible principle. The empirical divisions of time into past present and future cannot therefore be natural or integral to it. If the divisions of time were natural and therefore real parts in it, each of them would be numerically and essentially different from the others ; so that a definite span of time which is now cognized as present would never be divested of its intrinsic character of presentness and therefore could not be cognized as future before or as past afterwards. Nor can it be contended that a unitary time can possess the three determinations—pastness, presentness and futurity—as its original qualities. The determinations are obviously contradictory and incompatible. Besides, their coincidence would make all temporal distinctions impossible. In other words, there would be no bar to an event being cognized as past as well as future just when it is actually cognized as present.[29] The Vaiśeṣika naturally concludes that time acquires these distinctions from its relation to something outside the time-series. To be precise, the Vaiśeṣika asserts that the distinctions of time are derived from its association with the limiting adjuncts (*upādhi*) in the form of generated events (actions or objects), which are necessarily of finite duration.[30] Thus, although functioning as the universal substratum of all that *is*, so that whatever exists must be in it, time, by itself, is independent of all events happening in it. But time as present is dependent upon its relation to an event which has begun but not yet ended. Similarly, the past is the time associated with an event that has passed off, and the future is the time associated with an event that is yet to come to

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[29] KKK., p. 1234 and KKKV., p. 1235.

[30] *Janyamātraṃ kālopādhiḥ.*

pass.[31] Dissociated from all these concrete events which act as limiting adjuncts, time would transcend its limited, measurable aspects and be eternity.

But, if time *per se* cannot possess the distinctions of past, present and future, and if these distinctions are valid only relatively, are we to suppose that they do not really exist as such? And, if so, would such a position be consistent with a realistic view of time, such as the Nyāya-Vaiśeṣika maintains? We are thus inevitably confronted with the traditional problem of the reality of time.

The doctrine of the unreality of time has found powerful exponents in India as well as in the West. It has taken different forms with different philosophers and has naturally been supported by widely divergent arguments. We are, however, concerned here, for obvious reasons, only with those arguments which directly attack the Nyāya-Vaiśeṣika conception of the basis of the distinctions of past, present and future.

The most outstanding critic of the Nyāya-Vaiśeṣika theory of time is, of course, Śrīharṣa. His objection to the reality of time rests on the assumption that the temporal determinations are indefinable and unintelligible as separate entities. To define a thing is to mark it off from others; not to be able to define a thing is to admit that it has no recognizable specific character, which means that it is not real.

The Vaiśeṣika suggests that the past, present and future are distinguishable from one another by means of the different external conditions, *i.e.*, different solar motions, which determine them. But this, according to Śrīharṣa, is an untenable position, for all the three determinations of time are found to stand precisely in the same relation to the same solar motion. A particular day, for instance, which is cognized as present owing to its relation to a particular solar motion, is also cognized

[31] KV., pp. 120-121.

Cf. "If nothing were passing away, there would be no past time; and if nothing were coming, there would be no time to come; and if nothing were, there should now be no present time." Augustine: *The Confessions*, ix. 14.

as past and future by reference to that very motion. The day in question is understood as present on that very day, as past on the days that follow and as future on the days that precede. It is marked off from its predecessors and successors by the particular solar motion with which it is associated and which is common to all its determinations—past, present and future. But it is an obviously absurd position that relation to one particular external fact should be supposed to be the condition of the three determinations of time which are felt as distinct from one another. It may be said in defence that the difficulty is due to the absence of a necessary qualification in respect of the relation. We have the notion of the present when the time of an event is in *actual* relation to solar motion. When the relation in question *has been* and *is no more*, we have the notion of the past ; and of the future, when the relation *will be* but *is not yet*. But this defence, argues Śrīharṣa, only glosses over the difficulty. For the term 'actual' means 'existent', which is the same thing as present ; and 'has been' and 'will be' are mere synonyms of past and future.[32]

It has, again, been suggested by the Vaiśeṣika that the time determined by action (*kriyāvacchinna*) is present, and the time determined by the pre-non-existence of action is past, and the time determined by the post-non-existence or cessation of action is future. But this explanation also does not effect any improvement upon the previous position. All divisions of time are equally determined by action and thus turn out to be present alike. For there can be no time-division which is qualified by the pre-non-existence or post-non-existence of some action, and not qualified any action.[33] There is a further difficulty. Pre-non-existence and post-non-existence are unintelligible without reference to the notions of the previous and the subsequent. But the previous is the past, and the subsequent is the future. The Vaiśeṣika is thus involved in a vicious circle, for the terms which he uses for explaining time-determinations are found to imply them.

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[32] KKK., pp. 1235-1236; KKKS., p. 672.

[33] KKK., p. 1238.

The Vaiśeṣika proposes an amended definition of the present in the following terms: The time which is determined by a particular action is present in relation to that action and not to any other.[34] But this also does not solve the difficulty, for it is the same determining action that is found to qualify the present as well as the past and the future. Any moment of time which is regarded as present by virtue of its relation to a particular action is also recognized as past and future by reference to that very action. It may seem easy to get round the difficulty by supposing that determination (*avaccheda*) by the action concerned is not present in the past and the future; that is to say, such determination is present only in the present when the action is actually in progress.[35] But this simply seeks to define the present time by means of a present action when the meaning of the term 'present' is itself unknown. There is no escape from the difficulty even if it is asserted that the time which is determined by a particular action is present *at* the time of that action. For how can time be the receptacle of time when only one time-continuum is admitted? And, again, if time is one, there is no sense in saying that it can be its own receptacle.[36]

An argument which is similar in some respects, but which obviously had a different basis, was offered by McTaggart. Presentness, pastness and futurity, he points out, are contradictory and therefore incompatible characteristics, and yet every event has them all. We can escape the contradiction only by supposing that an event can have them not simultaneously, but in succession. The event *was* future, *is* present and *will be* past. But 'was', 'is' and 'will be' are equivalent to past, present and future. We are thus involved in a vicious circle, for to explain time-distinctions we use the different tenses which are themselves unintelligible without reference to time-distinctions.[37]

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[34] *Yatkriyāvacchinno yaḥ kālaḥ sa tatkriyāpekṣayā vartamāno na tv' anyāpekṣayā. Ibid.*, p. 1241.

[35] KKKV., p. 1243.

[36] KKK., p. 1241.

[37] McTaggart: *The Nature of Existence*, vol. ii, pp. 21-22.

The very conception of one infinite time appearing as diverse and finite through relation to the movement of an external body, is, according to Śrīharṣa, open to grave objection. It makes the time-determinations—past, present and future—relative and subjective. No external condition can be universally valid. There is neither fixity nor finality in it. Sometimes a moment may be said to be present, sometimes an hour, a day, a month, a year, and so on. If these distinctions are made dependent upon external circumstances of varying finite durations, no universal or objective standard of the present, or, for the matter of that, of any time-determination, can be propounded. This is certainly a bar to the clear and rational understanding of a time-determination as an objectively real fact.[28]

We do not find any attempt, on the part of the writers of the Nyāya-Vaiśeṣika school, to meet the criticisms of Śrīharṣa. We may however offer a few remarks of our own on this matter. The results of Śrīharṣa's arguments may be summed up as follows: There is no definition of a time-determination that can stand critical examination; no time-determination is therefore intelligible as a distinct entity. The Nayāya-Vaiśeṣika realist may accept the substantive proposition without committing himself to the consequential one. The definitions of the past, present and future may not be logically perfect, but even the most unbending sceptic cannot deny that they serve to distinguish them from one another with a fair degree of accuracy. The definitions may at least be accepted as unambiguous descriptions of time-determinations. The truth of the matter appears to be that the present is an object of immediate intuition about which there is no room for mistake or confusion. The existence of the present is directly indicated by the time-judgments forced upon us by our experiences. We may not be able to define a time-determination, but that does not prove that it lacks a recognizable individual nature. When Śrīharsa shows that the Vaiśeṣika's definitions of the present are applicable to the past and the future as well, he seems to have the conviction that the present

[28] KKK., p. 1244.

cannot be and should not be confounded with the past and the future. His repudiation of the definitions would have no sense if he were not himself conscious of the distinctive identity of the present as compared with that of the past or the future. It cannot, therefore, be suggested with any pretence to plausibility that our time-notions are unintelligible to ourselves.

The sceptic may argue that he does not seek to disprove this psychological possibility of our time-notions, or their practical value. What he seeks to assert is that the concept of time is not logically justifiable, and so cannot have ultimate validity. Time as an empirical concept with its empirical validity may pass muster in our ordinary intellectual activities. But that is no guarantee of its absolute validity. Even unreal things and demonstrably false notions may hold good at a certain level of our intellectual development, and in a certain sphere of activity. So these pragmatic arguments cannot shake the conclusions reached by the rigorous pursuit of logical necessity.

In reply to this defence of the sceptic, the realist may with all propriety urge that the distinction between the empirical (*vyāvahārika*) and the transcendental (*pāramārthika*) is not an established fact; nor is it necessitated by the demand for systematization of our experience. However, this is a very broad problem, and so far as the vindication of the reality of time is concerned, it is not necessary to enter upon a discussion of the issue. There is, however, no reason why the pragmatic value of the time-judgments should be discounted. The analogy of false beliefs having pragmatic justification is entirely irrelevant to the problem at hand. The popular belief in the movement of the sun may not lead to any untoward consequence in the plane of ordinary activity. But with the growth of knowledge of the planetary system as embodied in astronomy, the belief is found to come into conflict with the larger field of knowledge. So it has to be rejected. But the fundamental concept of time stands in a different position. We cannot conceive of any intellectual advancement, except in abstract speculations, which demands the rejection of time.

Absolute time is maintained by the Nyāya-Vaiśeṣika realist to be an infinite, ever-present continuant, which is not affected by the variations of time-determinations. The plurality of time-determinations, as we have seen, is not integral to time *per se*. Being an eternal entity, it exists even when all empirical determinations may cease to hold the field. These determinations are admittedly relative, and though they do not have the same degree of reality as possessed by infinite time, they are not unreal appearances, according to the Nyāya-Vaiśeṣika philosopher. The difference is that one is eternal and undetermined, and the others are transitory and determined by relation. The criticisms of Śrīharṣa do not therefore affect real metaphysical time. Even granting that time is not knowable apart from the three finite determinations, the unity and infinitude of time are not affected thereby. The fact is that these determinations are not *of* time, though they are *in* time; they really belong to events which are in time and not to time itself. The unreality of time would not therefore follow even if these determinations were inconceivable and unreal, as Śrīharṣa suggests they are.

4. The Atomic View of Time

Vyāsa, the author of the *Yogabhāṣya*, does not favour the Nyāya-Vaiśeṣika view of time as an infinite continuum. Time, according to him, has no real existence apart from an uninterrupted succession of atomic 'moments' (*kṣaṇa*). The moment is not a mere abstraction or logical figment. It is not to be conceived as an incalculably small quantum of time taken out of infinite duration. Nor is it to be understood as a mere determination of time dependent upon relation to an external limiting condition (*upādhi*), as is held by the Vaiśeṣika. The moment is an independent entity; it is defined as the absolute and irreducible unit of time; it is the measure of the minimal positional change in nature, *i.e.*, of the movement of an atom from its own position to the next.

It is essential to the nature of moments that they should arise, one after another, in uninterrupted succession. Each

moment can exist only by superseding the one preceding it. Two moments cannot co-exist. It is not possible for moments to be *actually* strung together in a linear arrangement, for when one of them is, others are not. The continuity of time should therefore be explained in terms of an *ideal* series of moments. It is the intellect which pieces together the moments—the existent present, and the non-existent past and future—and thus constructs the empircal divisions of time of various lengths. Every moment, being immediately subsequent to the one that has just passed off and being also the only moment at the time of its existence, is necessarily the present moment. This is the only one moment that is actual, since it represents a single unit of actual change which the whole material order undergoes. The past and the future moments are non-existent as independent entities, though they form part of changing matter.[39]

The Yoga view of time found an enthusiastic supporter in the grammarian philosopher Nāgeśa.[40] It is interesting to note that he did not fall in line with his great predecessors, Patañjali and Bharttṛhari, so far as the concept of time is concerned. He quotes them on many occasions, but interprets them in his own way. He refers, for instance, to Pantañjali's statement that the present time is real though imperceptible, and takes the statement to imply that time has no reality apart from the imperceptible atomic present.

The Vaiśeṣika definitely rejects the view that the continuity of time, whether finite or infinite, is only a convenient fiction derived from a conceptual fusion of 'real' moments. Nothing can be less like our consciousness of time than a fictitious series of moments ; nor does our perceptual experience know anything of moments of a mathematical sort.[41] This, however, does not imply that the moment itself is an absolute nonentity from the Vaiśeṣika standpoint. The moment as an indivisible unit of

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[39] YBh., III. 52.

[40] VSLM., p. 840.

[41] NKu., pt. II, p. 5; TC., vol. I, p. 380.

time is admitted as a fact both by the Pātañjala and by the Vaiśeṣika. But, as we have seen already, the former holds the moment to be an absolute entity, whereas the latter regards it as a relative concept.

Now the question arises: What, according to the Vaiśeṣika, is that external condition in relation to which time comes to acquire this specific limitation? The Vaiśeṣika is not a fluxist; he does not believe in discrete, momentary reals. Motion, or cognition or any other fact has, according to him, a certain duration and is thus incapable of functioning as the required term of reference (*upādhi*). It seems therefore necessary to postulate a new category (*padārtha*) to make the notion of the moment possible, and this category should be held to be a momentary entity different from all known facts.[42]

But the Vaiśeṣika asserts that there is no proof either for the existence of an objectively independent moment or for that of a momentary entity. The perceptual judgment, 'The jar exists for many *moments*', cannot be trotted out as the proof of the objectivity of the moment. The judgment cannot be supposed to refer to an objective moment, since the moment expires immediately after its contact with a sense-organ and is not synchronous with the perceptual knowledge. Nor can the existence of a moment be proved by inference, as there can be no probans. But, then, what is the basis of our use of the term 'moment'? The answer is given that it is a particular sort of cognition. But a cognition is determined by a datum. What can be the datum here? Vallabha maintains that the datum is a particular motion *and* the pre-non-existence of the disjunction (*vibhāgaprāgabhāva*) caused by it as the determinant (*upādhi*) of that motion. But as each of them has a definite duration, neither the one nor the other can be the datum in isolation. The two as *related* constitute the datum of such a cognition. But what makes them related? Vallabha answers that the cognition which apprehends the motion and the pre-non-existence of disjunction *together*, serves as the connecting

[42] NLV., p. 21; *Setu*, p. 73.

link. And as such a cognition does not arise except when its own conditions are fulfilled, the datum of this cognition must be a unique fact called moment.[43] It thus appears that we cannot directly arrive at the notion of a moment. We get at it only as a single piece of information referring to the last phase of a cause and the initial phase of its effect, held together in a temporal relation. Objectively, therefore, the moment is defined by Udayana as the point of time that intervenes between the presence of the full complement of causal factors (*sāmagrī*) and the emergence of the effect.[44]

The philosophical significance of this discussion lies in its emphasis upon the fact that time is a unitary, indivisible principle, and the distinctions of time as moment, hour and the like are only due to pragmatic requirements. The crucial problem of time relates to its unity and plurality. The unity is forced upon us by a logical necessity, and the plurality is a matter of common experience. The Nyāya-Vaiśeṣika does not think it possible to explain away the unity as an ideal construction derived from the different time-determinations. The distinctions of time are held to be external determinations of the unitary time. The denial of the independent reality of the moment as the minimal unit of time, and the explanation of the notion of the moment by reference to a combination of facts, by themselves non-momentary, bring this position into focus.

5. The Nature and Status of the Present

In the *Nyāyasūtra*, the triple determination of time is accepted as objectively real. The problem is raised in connection with the criticism of a view which holds the past and the future as the only real time-determinations and repudiates the existence of the present.[45]

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[43] NLV., pp. 42-48.

[44] KV., p. 118.

[45] This view, however, cannot at present be affiliated to any school of philosophy. In the days of the *Nyāyasūtra* and of the *Mahābhāṣya* there seems to have been in existence a class of thinkers who denied the present. These thinkers might have been Buddhists, as some are

The argument for the repudiation of the present is as follows: The divisions of time, which are always understood as durations, may be explained on the basis of their relation to spatial divisions or the parts of the path of a moving body. Let us take, for example, the case of a fruit falling from a tree after getting detached from its stalk. At any stage of its gradual descent towards the ground, the fruit, while passing through a particular position, may be said to have already traversed a certain distance. This distance, *i.e.*, the whole interval between the stalk and the fruit, is the space traversed (*patitādhvan*), and the time associated with it is the time passed through, *i.e.*, the past. The untraversed interval between the fruit and the ground is the space yet to be traversed (*patitavyādhvan*), and the time associated with it is the time yet to be passed through, *i.e.*, the future. In between these two spaces, there is no space which the fruit may be perceived as actually traversing. There is, therefore, nothing to which the present time may be assigned. So the present does not exist.[46] It is only an imaginary point of demarcation at which the future flows into the past.

The Naiyāyika criticizes this view on the ground that the future and the past are understandable only in relation to the present, and if the present were non-existent, the past and the future would be *a fortiori* non-existent.[47]

It appears that the case for the rejection of the present rests on the assumption that time is intelligible in terms of spatial divisions. But, as a matter of fact, there can be no

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inclined to think; but there is no conclusive evidence in favour of such a supposition, for the *Kathāvatthu* and other earlier Buddhist works testify to divergent opinions among the Buddhist sects on the three denominations of time. Some modern scholars are of opinion that the view criticized in the *Nyāyasūtra* represents Nāgārjuna's position. This is evidently wrong, for according to Nāgārjuna, the past, present and future are equally unreal, whereas the view under consideration is that of a realist who believes in the reality of the past and future, though not of the present.

[46] NS., II. i. 39 and NBh. thereon.

[47] NS., II. i. 40.

spatial representation of time. For the distinctions of time are not co-existent, while an unchangeable object like space can have, if at all, none but static and co-existent parts in it. Time should accordingly be supposed to be revealed through some changeable phenomenon—a phenomenon which comes into being after having been non-existent and which passes off after having existed. Such a phenomenon is action. Vātsyāyana, therefore, maintains that it is not in space but in action that we must look for the manifestation of time.[48] Action is invariably characterized by a time-quality, for every action is an event in time. When an action has ceased, it is regarded as an event of the past. When an action is yet to be, it is regarded as an event of the future. When an action is perceived as going on, it is regarded as an event of the present. The present is thus the time when an action is perceived as actually subsisting in a substance.

It may be argued by the opponent that a real action—a process of going on—can never be perceived, and so the present does not exist. Vātsyāyana replies that if the past and the future are to be saved, the existence of the present cannot be denied. For if an action were not perceivable even when it is in relation with a substance, there would be no way left to the knowledge of the past and the future. The past is that time-division in which the relation concerned has ceased, and the future is that in which the relation is yet to be produced. So the past and the future are both devoid of the action that marks the present. Or, to be precise, the substance under consideration is actually possessed of action in the present, and destitute of it in the past and the future. Thus time is understood only in terms of action. The present is pre-eminently related to the action, and the past and the future are determined by the negative relation in which they stand to that action. In other words, an action determines the present by its actual presence, the future by its previous absence, and the past by its sub-

[48] *Nā 'dhvavyaṅgyaḥ kālaḥ, kiṅ tarhi, kriyāvyaṅgyaḥ.*

NBh., II. i. 40.

sequent absence. It is thus only on the basis of an action actually perceived as present that we can judge its previous absence as a real possibility and its subsequent absence as a real cessation, as opposed to mere non-existence in both the cases. Unless we know that an action *is* at some time—and we can know it only when it *is*—we cannot say of it at any time that it *will be* but is not yet, or that it *has been* and is no more. There can therefore be no future and past if there be no present.[49]

The only way in which the present may be dispensed with is to declare that the past and the future represent antithetical determinations of time which are associated and contrasted with each other in the act of judgment and are thus understood only in relation to each other. But this offers no satisfactory explanation as to the precise manner in which the past can be determined with reference to the future, or *vice versa*, in the absence of the present. The analogy of such relative concepts as 'long' and 'short' or 'top' and 'bottom', which are supposed to be mutually determined, cannot establish the relativity of past and future. A point can be established only on the basis of a valid logical ground. Mere analogy has no cogency. If analogy were a sufficient argument, the conclusion could be shown the other way about. In a flower, for instance, colour and odour are found to be mutually associated without being dependent for their existence upon each other. This may be the case with past and future also.[50] The fact, however, is that even the concepts of 'long' and 'short' or 'top' and 'bottom' are not purely mutually determined. Something is 'long' or 'short' in relation to a constant or standard of measurement. The 'top' and the 'bottom' are understandable only by reference to the body of which they are parts.[51] Further, mutual dependence is only an argument for the unreality of the terms concerned. If one term is dependent upon another, and the latter, again, upon the former, for their very existence, neither of them will be

[49] *Ibid.*

[50] *Ibid.*, II. i. 41.

[51] NVTT., II. i. 40, p. 282.

real. So the positing of the past and the future as real time-determinations in the absence of the present is devoid of logic.[52]

We have already seen that, according to Vātsyāyana, the present as a time-determination is manifested directly by an actual action, *i.e.*, by an action *going on*. He does not, however, think that the present is manifested by action alone. There are things which may or may not possess action ; there are also things which cannot possess action. But they all exist, and they are present only by existing. The present is thus manifested not only by action but also by the existence of all things.[53] Substance exists ; quality exists ; action exists. The very existence of these things, which implies their presence or presentness, proves the existence of the present. If there were no present time, the propositions would carry no meaning. The consequence would be an unrelieved blank of negation. So the reality of the present cannot be repudiated without being involved in unmitigated nihilism.

Besides, the denial of the present time would rule out the very possibility of knowledge in any form. The perception of an object presupposes sense-object contact, and such contact is possible only if the object is existent (*sat*) or present, *i.e.*, has the same temporal loçus as the cognizing subject.[54] It may be contended againt this view that even a past or a future event is seen to be the object of supernormal intuition (*alaukika-pratyakṣa*) of the seer (*yogin*), and so the presentness of an object cannot be insisted upon as the condition of its presentedness. That the temporal determination of the object has nothing to do with the possibility of its being perceived, is admitted by both Uddyotakara and Vācaspati. But they maintain that perception itself being an event (*kārya*) must have a temporal locus, which can only be the present time.[55] For the time in which an event occurs is said to be present in relation to that event. It thus follows that there could be

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[52] NBh., II. i. 41.

[53] *Arthasadbhāvavyañgyaś cā 'yaṃ vartamānaḥ kālaḥ. Ibid.*

[54] *Ibid.*, II. i. 42.

[55] NV., II. i. 42, p. 257; NVTT., II. i. 42, p. 283.

no perception if there were no present time. And from the impossibility of perception would follow the impossibility of inference and verbal knowledge, since these presuppose perceptual knowledge as their source and foundation.[56]

We have seen that, according to Vātsyāyana, there are two ways in which the present may be manifested. There are accordingly two different modes of the present—one, absolute; and the other, relative.

The absolute mode of the present is perceived as unassociated with the past and the future. It is manifested by the continuous self-existence of substances.[57] The existent is necessarily the present in an absolute sense, even when it forms the subject of judgments that refer to the past and the future. According to Viśvanātha, the time-determinations in such cases, strictly speaking, relate to the qualities of the existing substance so far as they are liable to change under the impact of a continuous action. Thus it is said of one and the same jar, in spite of its continued existence *quâ* jar, that it *was* black in the past (before baking) and that it *will be* red in the future (after baking). We do nothing more than follow the linguistic convention when, on seeing a jar as red, we say that it *has ceased to be* a black jar, and when, on seeing a jar as black, we say that it *is yet to come into being* as a red jar. In strict logic, however, the time-determinations are to be understood as predicated of different qualities or actions, and not of the substance. The substance persists throughout and thus never ceases to be present.[58]

The relative mode of the present is perceived as associated with the past and the future and is manifested by the continuity of action, *i.e.*, by an uninterrupted series of actions (*kriyā-santāna*).[59] Vātsyāyana explains the position by reference to the act of cooking (*pāka*). A person is said to be cooking food until the food-stuff reaches a particular stage desired by him.

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[56] NBh., II. i. 42.

[57] *Ibid.*, II. i. 43.

[58] NSVr., II. i. 43.

[59] NBh., II. i. 43.

The act of cooking, even when it is spoken of as present, consists, in reality, of an uninterrupted series of diverse operations, of which only one is present, some are past and others future, if judged by reference to a watch. They are, however, viewed as constituting a single progressive action in the present time and expressed by a single verb-form in the present tense (*viz.*, *pacati*), since they are held together within one span by a single ultimate purpose (*ekaprayojanāvacchinna*)[60]. The present, therefore, must have a certain duration, but the duration cannot be objectively or independently fixed. It is determined by continuous action and is therefore relative to the interest and standpoint of an active subject. This accounts for the variations of the length of the present for different people. These variations, however, being necessitated by purely pragmatic considerations, can only be provisional and do not affect the absolute mode of the present.

Time, according to the Nyāya-Vaiśeṣika, is an ever-present entity, and thus all empirical determinations of time in their intrinsic nature cannot but partake of the character of presentness. Even the past and the future are not entirely independent of or unassociated with the present. The cessation of action which determines the past is a fact of the present time ; so also is the pre-non-existence of action which determines the future. It is, of course, true that in ordinary parlance an event is said to be past when it is no more present, or future when it is not yet present. In either case, the event has no position in what is called the 'specious present'. But this does not imply that the event is not related to the ever-present entity which is known as time. In fact, the past, the future and even the 'specious present' are externally conditioned specific determinations that can arise and pass off and qualify events only on the background of the infinitely extended Present. An object must be related to the Present, *i.e.* to time, if it is to be cognized as something that is or was or will be. As has been shown by Vātsyāyana and Vallabha, the very existence

[60] NBh., II. i. 42-43.

of a thing presupposes its relation to time ; and as its existence is maintained intact even in the midst of all the changes that happen to its determinations, its connection with time never ceases. Time, as *Eternal Now*, therefore, transcends all its empirical determinations. The truth of the conclusion is borne out by the fact that the present is found to be the determination of even the eternal verities, although the past and the future are not predicable of them.

ABBREVIATIONS

ATV. Ātmatattvaviveka of Udayana, ed. BI.

ATVBh. Bhagīratha Ṭhakkura's commentary on ATV., ed. BI.

ATVD. Raghunātha Śiromaṇi's commentary (*Dīdhiti*) on ATV., ed. BI.

ATVS. Śaṅkara Miśra's commentary on ATV., ed. BI.

BhP. Bhāṣāpariccheda of Viśvanātha, ed. NSP.

BI. Bibliotheca Indica, Calcutta.

BSS. Bombay Sanskrit and Prakrit Series, Bombay.

Cit. Citsukhī (Tattvapradīpikā) of Citsukhācārya, ed. NSP.

CSS. Chowkhamba Sanskrit Series, Benares.

Din. Dinakara Bhaṭṭa's commentary (*Dinakarī*) on SM., ed. NSP.

KKK. Khaṇḍanakhaṇḍakhādya of Śrīharṣa, ed. CSS.

KKKS. Śaṅkara Miśra's commentary on KKK., ed. Benares, 1917.

KKKV. Vidyāsāgara's commentary on KKK., ed. CSS.

KR. Kaṇādarahasya of Śaṅkara Miśra, ed. CSS.

KV. Kiraṇāvalī of Udayana, ed. Benares Sanskrit Series.

KVBh. Kiraṇāvalibhāskara of Padmanābha Miśra, a commentary on KV., ed. STS.

LV. Lakṣaṇāvalī of Udayana, ed. Benares, 1897.

MBh. Mahābhāṣya of Patañjali.

MM. Mānameyodaya of Nārāyaṇa Bhaṭṭa, ed. Trivandrum, 1912.

NBh. Nyāyabhāṣya of Vātsyāyana, ed. VSS.

NK. Nyāyakandalī of Śrīdhara, ed. VSS.

NKu. Nyāyakusumāñjali of Udayana, ed. BI., 1890.

NKuB. Nyāyakusumāñjalibodhanī of Varadarāja, a commentary on NKu., ed. STS.

NKuP. Nyāyakusumāñjaliprakāśa of Vardhamāna, a commentary on NKu., ed. BI.

NLV.	Nyāyalīlāvatī of Vallabha, ed. CSS.
NLVK.	Kaṇṭhābharaṇa of Śaṅkara Miśra, a commentary on NLV., ed. CSS.
NLVP.	Nyāyalīlāvatīprakāśa of Vardhamāna, a commentary on NLV., ed. CSS.
NM.	Nyāyamañjarī of Jayanta Bhaṭṭa, ed. Kashi Sanskrit Series, 1936.
NP.	Nayanaprasādinī of Pratyagrūpabhagavat, a commentary on Cit., ed. NSP.
NS.	Nyāyasūtra of Gautama, ed. BI.
NSP.	Nirnayasagara Press, Bombay.
NSVr.	Nyāyasūtravṛtti of Viśvanātha.
NV.	Nyāyavārttika of Uddyotakara, ed. BI.
NVTT.	Nyāyavārttikatātparyaṭīkā of Vācaspati Miśra, ed. VSS.
PP.	Prakaraṇapañcikā of Śālikanātha Miśra, ed. CSS.
PPBh.	The Bhāṣya of Praśastapāda, ed. VSS.
PTN.	Padārthatattvanirūpaṇa of Raghunātha Śiromaṇi, ed. Benares, 1916.
RR.	Rāmarudra Bhaṭṭācārya's commentary on Din., ed. NSP.
SBNT.	Six Buddhist Nyāya Tracts in Sanskrit, ed. BI.
SD.	Śāstradīpikā of Pārthasārathi Miśra, ed. NSP.
SK.	Sāṅkhyakārikā of Īśvarakṛṣṇa.
SM.	Siddhāntamuktāvalī of Viśvanātha, ed. NSP.
SP.	Saptapadārthī of Śivāditya, ed. V. S. Ghate, Bombay.
STK.	Sāṅkhyatattvakaumudī of Vācaspati Miśra, ed. Kṛṣṇanātha Nyāyapañcānana, Calcutta.
STS.	Saraswati-Bhavana Texts, Benares.
SV.	Ślokavārttika of Kumārila Bhaṭṭa, ed. CSS.
TaS.	Tarkasaṅgraha of Annam Bhaṭṭa, ed. BSS.
TBh.	Tarkabhāṣā of Keśavamiśra, ed. BSS., 1937.
TC.	Tattvacintāmaṇi of Gaṅgeśa, ed. BI.
TD.	Tarkadīpikā of Annam Bhaṭṭa, a commentary on TaS., ed. BSS.
TK.	Tarkakaumudī of Laugākṣi Bhāskara, ed. NSP.

TS.	Tattvasaṅgraha of Śāntarakṣita, ed. Baroda, 1926.
TSP.	Pañjikā, a commentary on TS., by Kamalaśīla, ed. Baroda, 1926.
VKT.	Vedāntakalpataru of Amalānanda Sarasvatī, a commentary on Bhāmatī, ed. NSP.
VKTP.	Vedāntakalpataruparimala of Appaya Dīkṣita, a commentary on VKT., ed. NSP.
VS.	Vaiśeṣikasūtra of Kaṇāda, ed. BI.
VSLM.	Vaiyākaranasiddhāntalaghumañjūṣā of Nāgeśa Bhaṭṭa, ed. CSS.
VSS.	Vizianagram Sanskrit Series, Benares.
VUp.	Upaskāra, a commentary on VS., by Śaṅkara Miśra, ed. BI.
VV.	Vyomavatī, a commentary on PPBh., by Vyomaśivācārya, ed. CSS.
YBh.	Yogabhāṣya of Vyāsa, ed. Benares, 1911.

Time and Space [in Nyāya-Vaiśeṣika]

A.B. Keith

4. *Time and Space.*

Time[2] is defined in the syncretist school as either the cause of our use of temporal expressions or of our knowledge of the ideas of priority and posteriority, simultaneity and non-simultaneity, soon and late, &c. It is one in number, omnipresent in dimension, individual in character, and possesses the qualities of conjunction and

[2] PBh pp. 63, 64, 164 ff.; SP., §§ 16, 79; TA., p. 5; TB., pp. 76. 77; TK., p. 8; TS., § 15; BP. 45, 46; Kir., pp. 114-21; TR., pp. 138, 139; KKK. ii. 179-86.. Raghunātha (PTN., pp. 1-8) refers both to God.

disjunction. The past of an individual is the time characterized by its destruction, the future that characterized by its precedent non-existence, the present is the time whose future existence is destroyed and whose own destruction is about to come.

In the *Nyāya Sūtra*[1] the question of the existence of the present time is discussed in answer to the objection that, when an object falls, we know only the time through which it has fallen and the time through which it still will fall. The reply is that without a present there can be no perception and no knowledge, and past and future would have no meaning or existence. In the *Vaiçeṣika Sūtra*,[2] whence as usual the syncretists borrow their definitions, there is further the pregnant doctrine that time is a cause for transient things in which it exists, but not for eternal things in which it is not found. This is a clear recognition of the fact that the eternal substances do not exist in time, while their qualities and motions have only existence there with all the products. But the term cause must not be understood in the sense that the Vaiçeṣika adopted the popular view that time was a great cosmic power which caused movement of things[3]; this is wholly contradictory to the view of the Sūtra, which never attributes the origin of motion to time, as well as to the harmonious tradition of the school. Time is a cause only in the loose sense of that term, which is affected in the school, namely as one of the many conditions which are necessary to the existence of a thing; it belongs to the category of general instrumental cause,[4] as opposed either to the

[1] ii 1. 39–43; NBh., pp. 87–90; NV., pp. 255–8; NM., p. 136.

[2] ii. 2. 6–9; v. 2. 26; vii. 1. 25; 2. 22.

[3] Chatterji, *Hindu Realism*, pp. 54–8, 167; *contra*, M. Walleser, *Buddh. Phil.*, i. 123–33.

[4] PBh., p. 25; Kir., p. 38; above, ch. vii, § 4.

specific instrumental cause (*karaṇa*) or the inherent or non-inherent causes.

The nature of the conjunction which results in the conceptions of priority and posteriority is made clear by the stock example of the school. If we say, 'Here now is a jar' we operate with a conjunction of a special character, that of the sun and the jar; this conjunction is not like that of material objects or their parts, and it is due to some reality which must be inferred, and is inferred as time. So, again, if we make a youth our starting-point, the cognition of priority is produced in the case of an old man whose birth precedes that of the youth by many revolutions of the sun.[1] These motions of the sun are the conditions which mark the divisions of time, such as moments, months, and days. It is these conditions which render time apparently manifold instead of one as it really is, and help to create the impression held by some of the Nyāya school that time was, as claimed by the Buddhists, merely a series of moments, a view, which, as we have seen, the Nyāya and Vaiçeṣika repudiated as a general principle, but adapted with modifications in their theory of the character of all non-eternal existence, in the shape of the theory that every quality and action lasts for three moments only. There remains one obvious difficulty in regarding time itself as eternal, when its presence in eternal substances is denied. But in both cases the term 'eternal' denotes that which has no cause save itself and really exists, and which in the temporal terms which we cannot avoid in use can

[1] The process is a conjunction (*pratyāsatti*) through inherence of the motion in the sun, which is conjoined with what is conjoined, viz. the youth; Kir., p. 115; VSU. ii. 2. 6; NK., p. 34, negates this, and (p. 65) uses bodily conditions as different to give inference of time. The number of conjunctions with parts of space and time is given as the basis of proximity and distance, TB., p. 42; PBh., p. 164; NK., p. 168.

only be described as eternal, unless we frame the concept —though it can have no concrete meaning for us—of that which is not in time at all.

Time, therefore, is regarded as a fundamental reality which is the basis of our time knowledge with which all transient existence is bound up. Thus time is absolutely *a priori* for the school as much as for Kant, but as consistent realists they do not ascribe time to the product of mental activity in any form, but hold that it imposes its nature on mind.

Space,[1] Kaṇāda tells us, is that which gives rise in respect to two coexisting objects of the recognition that one is distant from the other; in more technical language it is the proximate instrumental cause of our use of terms such as, or of our conceptions of, far and near, according as we view the matter from the point of view of our speech or of the thoughts which it embodies. Like air, space is a substance which is independent and eternal in the sense in which all substances possess that characteristic; like existence, it is one and possesses individuality. Like time, it is all pervading, and possesses conjunction and disjunction, and its multiplicity is also due not to its own nature, but to the divergence of effects. Our conception of direction as east is derived from the conjunction of the sun as past, future, and present, and similarly with other directions; they are given their character by reference to the sun which thus plays with regard to space an analogous part to its action in regard to time. Similarly, like time, space is inferred on the ground that without some such reality it would be impossible to explain our ideas and language. Space also is a cause, but only in the general sense of

[1] VS. ii. 2. 10-16; PBh., pp. 66, 67, 164 ff.; SP., §§ 17, 80; TA., p. 6; TB., p. 77; TK., p. 3; TSD., § 16; BP. 43, 44; Kir., pp. 121-6; TR., pp. 138, 139; Lakṣ., p. 7.

a part of the conditions necessary for any existence as is time with which it therefore is classed as part of the eight or nine general causes.[1] That space is a reality[2] which holds things in their place, comparable to the power of gravitation, regarded as an independent reality and not merely as an attribute of things, is certainly not the conception of any period of the Vaiçeṣika school.

The distinction between space and time is made clear in the texts which expressly counter the suggestion that priority and posteriority in time and space should be attributed to one and the same cause.[3] The condition (*upādhi*) which diversifies time is production or action; that which diversifies space is contact with objects occupying space (*mūrta*). The old man may be near the young man in space but prior in time. Or, again, the relations of time have a certain degree of constancy (*niyata*), which is denied to those of space; the true explanation of this doctrine can be seen from one of the examples which illustrate it; when one thing is present in time with reference to another thing, the latter is also present in time with reference to the former, while a mountain which is at one time to the east of us may later be to the west. The idea thus somewhat crudely expressed is clearly that there is a generic distinction between simultaneity in time and side by side relations in space, though the example cannot be taken as happily framed or accurate.

From ether space is clearly distinguished in the

[1] Above, ch. vii, § 4.

[2] Chatterji, *Hindu Realism*, pp. 57–61, 167, 168. The real view of the schools has more affinity with the modern doctrine of space and time as *principia individuationis*, Pringle Pattison, *The Idea of God*, pp. 267, 364.

[3] VSU. ii. 2. 10.

system by the fact that the former has the specific quality of sound, while the latter has no specific quality at all; ether produces one effect only, sound, space is a general cause; ether has affinities to the atomic substances with which it forms the class of elemental substances (*bhūta-dravya*). What, however, is the precise ground on which this distinction is set up? The answer is not obvious, and it has been suggested [1] that in fact Kaṇāda accepted only one reality variously called, according to the difference of its effects and conditions, ether, time, and space, a view supported by the fact that, though he establishes the difference of ether from the atomic substances, self and mind, he does not explain the difference between ether, time, and space, nor differentiate the two from other substances. But this is to ignore the clear meaning of the Sūtra. It is equally unavailing to assert that space is really a force holding things in place in ether, which is really space, against the driving power of time. The true explanation of the distinction, doubtless lies in the inherited differentiation of ether as the substratum of sound, and the necessity of expressing by a new term the idea of space,[2] which ether was not well fitted to convey in view of its connexion with the concrete quality sound, which brought it into analogy with the atomic substances.

[1] Candrakānta on VS. ii. 2. 12. This is the Sāṁkhya view, SS. ii. 12.

[2] In NS. ii. 1. 22 *dikdeça* are found with time and ether as general causes. On the perceptibility or inferability of time and space see NM., pp. 136–41. Çañkara Miçra (v. 2. 25) calls space a non-inherent cause, against PBh., p. 25.

ABBREVIATIONS

AGWG. Abhandlungen der königl. Gesellschaft der Wissenschaften zu Göttingen.

BI. Bibliotheca Indica, Calcutta.

BP. Bhāṣāpariccheda, ed. and trs. E. Röer, BI., 1850.

BS. Brahma Sūtra of Bādarāyaṇa, ed. BI.

BSS. Bombay Sanskrit Series.

Colebrooke. *Miscellaneous Essays*, ed. E. B. Cowell, London, 1873.

Deussen, P. *Allgem. Gesch. Allgemeine Geschichte der Philosophie*, I. i–iii, Leipzig, 1906–8.

Garbe, R., *Sāṁkhya. Die Sāṁkhya-Philosophie*, Leipzig, 1894 (2nd ed., 1917).

GSAI. Giornale della Società Asiatica Italiana.

JAOS. Journal of the American Oriental Society.

JASB. Journal of the Asiatic Society of Bengal, new series.

JBRAS. Journal of the Bombay Branch of the Royal Asiatic Society.

JRAS. Journal of the Royal Asiatic Society.

KKK. Khaṇḍanakhaṇḍakhādya, trs. Gaṅgānātha Jhā (reprint from Indian Thought).

Kir. Kiraṇāvalī of Udayana, ed. with Praçastapāda, Benares, 1885 and 1897.

Kus. Kusumāñjali of Udayana, ed. and trs. E. B. Cowell, BI., 1864.

MBh. Mahābhārata.

MS. Mīmāṅsā Sūtra of Jaimini, ed. BI.

Müller, F. Max, *Six Systems. The Six Systems of Indian Philosophy*, London, 1899.

NA. Nyāyāvatāra of Siddhasena Divākara, ed. and trs. S. C. Vidyābhūṣaṇa, Calcutta, 1909.

NB. Nyāyabindu of Dharmakīrti, ed. P. Peterson, BI. 1890.

NBT. Nyāyabinduṭīkā of Dharmottara, ed. u. s.

NBh. Nyāyabhāṣya of Vātsyāyana, ed. Benares, 1896.

NGWG. Nachrichten der königl. Gesellschaft der Wissenschaften zu Göttingen.

NK. Nyāyakandalī of Çrīdhara, ed. Benares, 1895.

NKoça. Nyāyakoça by Bhīmācārya Jhaḷkīkar, BSS. xlix, ed. 2, 1893.

NL. Nyāya Philosophy, Sāḍholal Lectures, by Gaṅgānātha Jhā (in Indian Thought).

NM. Nyāyamañjarī of Jayanta, ed. Benares, 1895.

NS. Nyāya Sūtra, ed. and trs. S. C. Vidyābhūṣaṇa, SBH. viii, 1909.

NSM. Nyāyasiddhāntamañjarī of Janakīnātha (in The Pandit, new series).

NSāra. Nyāyasāra of Bhāsarvajña, ed. S. C. Vidyābhūṣaṇa, BI. 1910.

NV. Nyāyavārttika of Uddyotakara, ed. BI. 1887–1904.

NVT. Nyāyavārttikatātparyaṭīkā of Vācaspati Miçra, ed. Benares, 1898.

ABBREVIATIONS

NVTP. Nyāyavārttikatātparyapariçuddhi of Udayana, ed. BI.
Oltramare, P. *L'histoire des idées théosophiques dans l'Inde*, vol. i, Paris, 1907.
PBh. The Bhāṣya of Praçastapāda, ed. Benares, 1895.
PMS. Parīkṣāmukhasūtra of Māṇikya Nandin, ed. BI.
PMV. Parīkṣāmukhasūtralaghuvṛtti of Anantavīrya, ed. BI.
PP. Prakaraṇapañcikā of Çālikānātha, ed. Chowkhambā Sanskrit Series, 1903-4.
PSPM. The Prābhākara School of Pūrva Mīmāmsā, by Gaṅgānātha Jhā, Allahabad, 1911.
ÇD. Çāstradīpikā of Pārthasārathi Miçra, ed. The Pandit.
ÇV. Çlokavārttika of Kumārila, trs. Gaṅgānātha Jhā, BI.
SAB. Sitzungsberichte der königl. preussischen Akademie der Wissenschaften zu Berlin.
Sugiura, Sadajiro, *Hindu Log.* *Hindu Logic as preserved in China and Japan*, Philadelphia, 1900.
SBE. Sacred Books of the East, Oxford.
SBH. Sacred Books of the Hindus, Allahabad.
SBNT. Six Buddhist Nyāya Tracts in Sanskrit, ed. Haraprasād Shāstri, BI. 1910.
SDS. Sarvadarçanasaṁgraha of Mādhava, ed. Ānandāçrama Sanskrit Series, no. 51.
ṢDS. Ṣaḍdarçanasamuccaya of Haribhadra, ed. BI.
ṢDST. Ṣaḍdarçanasamuccayaṭīkā of Guṇabhadra, ed. BI.
SM. Siddhāntamuktāvalī, ed. with BP.
SP. Saptapadārthī of Çivāditya, ed. V. S. Ghate, Bombay, 1909.
SS. Sāṁkhya Sūtra, ed. BI.
SSS. Sarvasiddhāntasaṁgraha, attributed to Çaṅkara, Madras, 1909.
Suali, L., *Intr.* *Introduzione allo studio della filosofia indiana*, Pavia, 1913.
TA. Tarkāmṛta of Jagadīça, ed. Calcutta, 1880.
TAS. Tattvārthādhigama Sūtra of Umāsvāti, ed. BI; trs. H. Jacobi, ZDMG. lx.
TB. Tarkabhāṣā of Keçava Miçra, ed. S. M. Paranjape, Poona, 1894.
TC. Tattvacintāmaṇi of Gaṅgeça, ed. BI.
TK. Tarkakaumudī of Laugākṣi Bhāskara, ed. M. N. Dvivedi, BSS xxxii, 1886.
TR. Tārkikarakṣā of Varada, ed. Benares, 1903.
TS. Tarkasaṁgraha of Annam Bhaṭṭa, ed. Y. V. Athalye, BSS. lv, 1897 (preface by M. R. Bodas).
TSD Tarkasaṁgrahadīpikā, ed. u. s.
VOJ. Vienna Oriental Journal.
VS. Vaiçeṣika Sūtra, ed. BI.; trs. SBH. vi, 1911.
VSU. Vaiçeṣikasūtropaskāra of Çaṅkara Miçra, ed. BI.
VSV. Vaiçeṣikasūtravṛtti of Jayanārāyaṇa, ed. BI.
Vidyābhūṣaṇa S. C., *Med. Log.* *History of the Mediaeval School of Indian Logic*, Calcutta, 1909.
YS. Yoga Sūtra of Patañjali, ed. BSS. xlvi, 1892.
ZDMG. Zeitschrift der Deutschen Morgenländischen Gesellschaft.

Space and Time [in the Vaiśeṣika System]

B. Faddegon

§ 1. *Sūtras bearing upon space and time.*
(*Nanda Lal Sinha's translation.*)

A. Definition and ontological properties of time.

II, 2, 6 'Posterior' in respect to that which is posterior, 'simultaneous', 'slow; 'quick', — such [cognitions] are the marks of time.

7 The substance-ness and eternality [of time] are explained by [the explanation of the substance-ness and eternality of] air.

8 The unity [of time is explained], by [the explanation of the unity of] existence.

9 The name time is applicable to a cause, inasmuch as it does not exist in eternal substances and exists in non-eternal substances.

B. Definition and ontological properties of space.

II, 2, 10 That which gives rise to such [cognition and usage] as 'This [is remote, &c.] from this', — [the same is] the mark of space.

11 The substance-ness and eternality [of space are] explained by (the explanation of the substance-ness and eternality of] air.

12 The unity [of space is explained] by [the explanation of the unity of] existence.

13 The diversity [of space] is due to the difference of effects.

14 [The direction comes to be regarded as] the east, from the past, future, or present conjunction with the sun.

15 South, west and north also are similarly [distinguished].

16 By this the intervals of direction are explained.

C. Time & space, considered in relation to movement and causality.

V, 2, 21 Space, time, and also ether are inactive, because of their difference from that which possesses activity.

22 By this, actions and attribute are explained (as inactive).

23 [The relation] of the inactive [i. e. attributes and actions], [to substances], is [combination] [which is] independent of actions.

24 Attributes are, however, non-[combinative] causes.

25 Space is explained by attributes.

26 By way of [efficient] causality, [the reference of action to time as its seat, being explained] time [is explained to be inactive, so far as combinative causality is concerned].

D. Distance (*paratva* and *aparatva*).

VII, 2, 21 The prior and the posterior [are produced by two objects] lying in the same direction, existing at the same time, and being near and remote.

22 [Temporal priority and temporal posteriority are said, by suggestion, to arise respectively] from priority of the cause and from posteriority of the cause.

23 The non-existence of priority and posteriority, in priority and posteriority, is explained by minuteness and magnitude.

24 Actions are [void] of actions.

25 Attributes are [void] of attributes.

E. Extension or size (*parimāṇa*).

VII, 1, 8 Cognition and non-cognition of the atomic and the extended or massive, respectively, have been explained in [the book treating of] the eternal.

9 [Largeness or magnitude is produced] from a multiplicity of causes also.

10 The contrary of this is the atomic.

11 '[It is] smaller', '[It is] larger' — such affirmations, in respect of one and the same object, arise from the existence of the species [or of the peculiarity] and from the non-existence of the species [or of the peculiarity].

12 [The attribution of smallness is secondary], because of the simultaneity [of the cognition of largeness and smallness in respect of the same object].

VII, 1, 13 Also because there is the analogue.

14 The non-existence of minuteness and magnitude, in minuteness and magnitude, is explained by [the explanation, already given of the non-existence of actions and attributes, in] actions and attributes.

15 Actions have been explained [to be void] of actions and attributes of attributes.

16 By minuteness and magnitude, actions and attributes are explained [to be void of minuteness and magnitude].

17 Hereby are explained length and shortness.

18 In the non-eternal [measure or extension also is] non-eternal.

19 In the eternal [measure or extension also is] eternal.

20 *Parimaṇḍala* is eternal.

21 False knowledge is, moreover, the [inferential] mark of [true] knowledge.

24 By attributes, space is explained [to be all-pervasive].

25 Time [is the name given] to [a specific, or a universal] cause. [Hence, in either case, it is all-pervading].

§ 2. Quotations *from Nanda Lal Sinha's Appendix B:*

p. IV, on passage II, 2, 10—16. — „CANDRAKĀNTA TARKĀLAṂKĀRA observes under II, 2, 12: according to KAṆĀDA it appears, there is but one substance, variously called as ether, time and space. For, he has taken much pain to establish the difference of ether from tangible things, self and mind, but he has made no attempt to prove the difference of time and space themselves from any other substance. It may be, therefore, considered that with the difference of ether, the difference of time and space also have been established. But it may be asked, if there be one substance only, how does it come to be variously called ether, time and space? He replies that this is due to the variety of effects produced by it (II, 2, 13) and also to the variety of external conditions attending it (II, 2, 14—16)".

p. V, on passage VII, 1, 8—25. — „Candrakānta Tarkālaṃkāra interprets VII, 1, 16 to mean that minuteness and magnitude may be predicated of action and attribute. He takes the word *parimaṇḍala* in VII, 1, 20 in the sense of perfect sphericity and introduces VII, 1, 22 as giving examples of it which may be both small and large".

p. V on the formula: „*tattvam bhāvena*", (occuring II, 1, 19 with reference to *ākāça*, II, 2, 8 with reference to time, II, 2, 12

with reference to space and VII, 2, 28 with reference to inherence): „Candrakānta Tarkālaṃkāra interprets VII, 2, 28 to mean that combination is proved to be an attribute in the same way as is existence and further that like existence, combination also is produced by itself, i. e. does not depend upon any other combination for its production."

§ 3. *Introductory remarks.*

Before explaining the sūtras quoted it may be stated that a complete definition and analysis of the notions 'space' and 'time' would require the following points to be mentioned: space allows mental construction which is bound by the tri-dimensionality of space and has consequently to do with three kinds of figures: lines, planes and bodies; space has two fundamental forms of mensuration: mensuration of straight lines (distance) and mensuration of corners (direction); further a movement of an object is not only defined spacially by the distance described and the direction followed, but thirdly by the sense of direction in as far as the object may first reach a spot *a* and afterwards a spot *b*, or first the spot *b* and then the spot *a*. In all three respects time is distinguished from space: time does not allow a direct mental construction (a comparison of time-intervals with straight lines is only a symbolical artifice), it has onely one form of mensuration and the moments of time are occupied by the events only in one fixed order which does not allow inversion. In contrasting time and space we must, moreover, notice that the notion 'simultaneity' has not an equivalent correspondent in relation to space; for, whilst (infinitely) many events occur at one and the same moment, only one physical body occupies its part of space, a property of matter, called impenetrability in physics, though in mathematical argumentation it is supposed that different (mathematical) bodies may occupy the same place. On the other hand, in as far as time and space equally allow the application of number it follows that both are infinitely great, so that whatever extent in space or whatever duration in time is thought of, still a greater extent or duration is to be accepted; that both time and space are infinitely divisible &c.

§ 4. *Explanation of the sūtras.*

I intend to give first a discussion of the passages quoted, sūtra after sūtra, in order to finish with an appreciation of the total contents on the basis of my introductory remarks.

A. In passage II, 2, 6—9, sūtra 6 strikes us in mentioning: „posterior in respect to that which is posterior", whilst we should expect: „posterior in respect to that which is anterior (& vice versa).". This reading is indeed met with in the Berhampore edition and seems to be the original one. Strangely enough the reading: „*aparasminn aparam*" (which inversely implies: „*parasmin param*") is in fact not explained in the Upaskāra. We find here the following comments (Bibl. Ind. ed. p. 108, transl. p. 82): „If we make a youth our point of view or starting point (*yuvānam avadhiṃ kṛtvā*), then the cognition of priority is produced in an old man, whose birth has been distanced by a large number of the revolutions of the sun....; in the same way the production of posteriority should be ascertained in a youth with an old man as the starting point." We find, however, a satisfactory explanation in another recent Vaiçeṣika work, namely in KEÇAVAMIÇRA's *Tarkabhāṣā*. The passage, in question, runs as follows (Poona edition 1909, p. 76): „*Saṃnihite vṛddhe saṃnidhānād aparatvārhe viparītam paratvam utpadyate; vyavahite yūni vyavadhānāt paratvārhe viparītam aparatvam*"; it is paraphrased by the editor PARANJPE thus: „Although an old man is sitting immediately near the speaker and deserves for that reason to be called *apara* (nearer in point of space), still an idea of remoteness is produced in connection with him; whereas an idea of nearness in created with regard to a young man, although he is not sitting immediately near the speaker and deserves for that reason to be called *para* (more distant in point of space). Thus ideas of remoteness in an old man and of nearness in a young man, not being the result of *diç*, lead one to infer that their cause must be *kāla*." This explanation which makes the sūtra express in a very subtle way the logical independence of temporal distance from spacial distance, seems to be right, in as far as a similar thought is expressed in sūtra II, 2, 14. The subtlety of the thought seems to be, however, an indication of the relatively recent origin of the reading.

The substantiality, attributed to time in II, 2, 7 can of course not be accepted, though this thought naturally enough will suggest itself to human understanding.

In sūtra II, 2, 8 *tattva* is translated by NANDA LAL SINHA as *unity* in accordance with the Upaskāra, where we find *ekatva* as interpretation of *tattva*. The correctness of this interpretation is proved by comparing V.S. II, 1, 29, where the same formula is found, and II, 1, 30, with V.S. I, 2, 17.

Sūtra 9 considers time in connection with causality. This subject

is more fully treated in passage V, 2, 21 &c. The word *iti* is accepted by ÇAṂKARA MIÇRA in a causal sense, namely with reference to the precedent ablative (Bibl. Ind. ed. p. 112; transl. p. 85). We had, however, better explain its use as indicating the conclusion of the discussion of the topic 'time'. Instead of translating the expression „*kāraṇe kālaḥ*" thus: „the name time is applicable to a cause", I should prefer giving the rendering: „the name time applies (or refers) to a cause". This part of the sūtra is repeated without change as sūtra VII, 1, 25 and in the form: „*kāraṇena kālaḥ*" in sūtra V, 2, 26.

B. Nanda Lal Sinha's interpretation of „*ita idam*" (in II, 2, 10) is in accordance with the Upaskāra, where the sūtra is completed by the impressions *param* & *aparam*.

Sūtras 11 & 12 are to to be explained similarly as 7 & 8.

In sūtra II, 2, 13 CANDRAKĀNTA TARKĀLAṂKĀRA's interpretation (see here p. 210 § 2) is different from the one, given by the Upaskāra and followed by Nanda Lal Sinha. According to Candrakānta, namely, *nānātva* would refer not only to *diç*, but to *ākāça*, *kāla* and *diç* together. When we, however, remember that *ākāça* is discussed at the end of āhnika II, 1, and is separated from the examination of *kāla* and *diç* by the sūtras II, 2, 1—5 which treat of qualities, this interpretation seems rather doubtful. Still it is a fact worthy of notice that even later Vaiçeṣika philosophy (cf. here book IV section IV table A) did not try to sum up the distinguishing characteristics of time and space. This and the fact that European science does not recognise a distinction of physical and mathematical space have very probably suggested this interpretation to Candrakānta Tarkālaṃkāra.

In sūtra 14 & 16 I should prefer not to follow Nanda Lal Sinha, but to use the same translation for *diç* as before, namely: mathematical space (cf., however, sūtra VII, 2, 21 and here p. 211 § 3). Sūtra 14 is amply explained by the Upaskāra (Bibl. Ind. ed. p. 116; transl. p. 88) as: „The east (*prācī*) is so called, because the sun first (*prāk*) moves (*añcati*) there. Thus that direction is called the east, wherein the first conjunction of the sun took place or will take place, or is taking place, in the course of its circulation round Mount Meru."

C. In order to understand passage V, 2, 21 &c. one must remember that Vaiçeṣika philosophy distinguishes three kinds of causes: 1. the inherential cause (*a.* a substance is the inherential cause of its qualities and movements; *b.* the parts are the inherential cause of the whole); 2. the non-inherential cause (as such qualities and actions occur;

f. i. an action, i. e. movement, is the non-inherential cause of the following conjunction; 3. the occasional or efficient cause which is one, other than the inherential and non-inherential cause. (Cf. here p. 138 § 5).

Now it is said in V, 2, 21 that time and space are without movement. In 22 and 23 the same is mentioned, by way of egression, with reference to qualities, movements and inherence, whilst *sāmānya* and *viçeṣa* are left out. Next to these sūtras which examine the relation which time, space, qualities &c. bear to movement, we find some sūtras (24—26) which consider the connection of these notions with causality. Things have their spot in space and their duration in time, similarly movements occur in space and time. Since, however, the portions of things are already considered to be the inherential cause of the things and the things themselves the inherential cause of their movements, and since on the other hand space and time are without movement, therefore space is considered to be a non-inherential cause of everything which it contains (sūtra 25), similarly as a quality is a non-inherential cause (sūtra 24); and time is called an occasional cause — according to Çaṃkara Miçra's explanation of sūtra 26, where *kāraṇena* is to be taken as *nimitta-kāraṇena* — of movement, and in general of all things existing in time (cf. II, 2, 9). No doubt, the passage V, 2, 22—26 is an insertion. This is clear both by the contest and by the fact that the distinction of the three kinds of causes is of rather recent origin.

D. In passage VII, 2, 21 I should like, in accordance with the Upaskāra, to replace Nanda Lal Sinha's translation by the following: „The [expressions, notions] 'prior and posterior' are produced by two objects being [respectively] near and remote, which [either] lie in the same direction (*diç*) [or] exist at the same time." 'Nearness' is paraphrased by Çaṃkara Miçra as: *saṃyukta-saṃyogālpataratva*, the state of containing a smaller number of conjunctions with the conjunct (i. e. with that body which is in immediate conjunction with our sense-organ). The expression 'remoteness' is paraphrased by *saṃyukta-saṃyogabhūyastva*. The expression: „which lie in the same direction" refers to spacial nearness and remoteness, in as far as relative distance is most directly perceived when the perceiving person and the two objects in question are placed in one straight line. The expression: „which exist at the same time" is explained by means of the example of an old man and a young man, in which case the birth of the former is more remote than the birth of the latter. We notice that the word *diç* is here used in the more

original meaning of *direction*, and not yet in the technical signification of *space* (a notion which includes two forms of mensuration: direction and distance). The interpretation, given by Çaṃkara Miçra, agrees with the one, by PRAÇASTAPĀDA. A more detailed excursion on the origination of the notions 'nearness' and 'remoteness' is found in the Nyāya-kandalī (p. 168).

Sūtra 22 (as we shall soon see) must be explained with the help of II, 2, 9. The Upaskāra refers sūtra 22 merely to time; the Vivṛti to space as well. DVIVEDIN, the editor of the Praçastapāda-bhāṣya, connects our sūtra with the paragraph on space (p. 63 line 21 &c.) as well as with the paragraph on time (p. 67 line 1 & 2). Now, we have to notice that the reference in the former place is a literal quotation, whereas an indication in the latter place really does not exist. The meaning of the sūtra, according to Praçastapāda and Çaṃkara Miçra would be thus: „we call two events A and B respectively near [recent] and remote [old], when the event A is *conjoined with* a nearer point of time and the event B is conjoined to a remoter point of time." The formula of the sūtra itself is clear when we remember that time is called the (efficient) cause of everything existent. The sūtra really hints at the fact that time has only one mensuration and that its moments only allow of one order without inversion.

We may paraphrase the sūtras 23--25 thus: just as movement does not inhere in movement (24), nor any quality in quality (24), nor the special quality minuteness in minuteness (23, cf. VII, 1, 14), so does not priority inhere in priority.

E. With reference to the passage, treating of *parimāṇa* (VII, 1, 8—25) I want to make the following remarks. — Sūtra 8 refers to the fourth book; see specially IV, 1, 6 & 7. Whilst *anupalabdhi* (in sūtra VII, 1, 8) is both related to *aṇor* and *mahataḥ*, *upalabdhi* of course can only relate to *mahataḥ*, since the atoms are always imperceptible (except for the yogins). Nanda Lal Sinha's insertion of „respectively", therefore cannot be right. — Sūtra 9 is explained by the Upaskāra as referring to the origination of *parimāṇa*. The particle *ca* is explained there as implying *parimāṇa* and *pracaya* (loose conglomeration) under the causes of *parimāṇa*. Extension is produced by number, when tertiary atomic aggregates originate from ultimate atoms; here number itself is an effect of the Lord's *apekṣā-buddhi* (fundamental intellection).[1]) Extension is produced by extension

[1]) Cf. Praç. Bhāṣya p 131 l. 5.

when solid things are joined together. Extension is produced by *pracaya*, when loose, porious matter, like cotton balls, is heaped into one mass. This explanation is in accordance with a passage in Praçastapāda's Bhāṣya (p. 131 l. 4—14). Still I do not consider the sutra a decisive proof of the Sūtrakāra's already possessing the theory of *apekṣā-buddhi*; not unlikely the particle *ca* is an insertion in sūtra 9. — Sūtra 11—13 are explained by the Upaskūra with the help of such a conception of the notion *'aṇu'*, as is explicitly stated by Çrīdhara (Nyāya-kandalī p. 137 l. 7) and which seems to completely agree with the ideas of Praçastapāda's (Bhāṣya p. 131 l. 14—17). According to Çrīdhara an atomical size, added again to an atomical size, would produce a still more atomical size. By addition, namely, the quality itself, and not its counterpart, would increase. Small, added to small, would produce 'smaller' or 'smallest', but not 'larger'. For this reason a tertiary atom (which possesses size) could not be formed by simple addition of three ultrimate atoms, but only by a fundamental intellection of the Lord. It is clear, when we define 'ultimately small' as a variable quantity which, in course of its variation, becomes smaller than any quantity taken ad libitum (the only definition which can be used in mathematical science), that then the sum of two 'infinitely small' quantities is not smaller, but larger than the two separate terms. So then Çrīdhara's argumentation that *aṇu*, added to *aṇu*, becomes *aṇutara*, appears to be the outcome of a wrong analysis of the notion *aṇu*. Returning now to the interpretation of sūtra 11, we should notice that in the Vaiçeṣika system *aṇu* properly and rightly means 'ultimately small', and figuratively 'small'. Thus sūtra 11 is explained by Çaṃkara Miçra in the following way: we can call the same thing small [in comparison to large things] and large [in comparison to small things], because [smallness is only a figurative expression, in as far as] the particularity [greatness] exists [in all experienced objects] and the particularity [smallness, taken in its real sense] does not exist [in any experienced object]. — Sūtra 13 is explained by Çaṃkara Miçra thus (Bibl. Ind. p. 300; translation Nanda Lal Sinha p. 224): „The meaning is that it is seen likewise that in the natural order of things (*vastugati*) the practical recognition i. e. the application (*vyavahāra*) of large, larger and largest, must be with regard only to things possessing magnitude... just as the application of white, whiter and whitest is according to the nature of things (*vastugati*) with regard only to white objects..." When we, however, compare the sūtras 11—13 with Praç. Bhāṣya p. 131 l. 1—4 another interpretation suggests itself. Then *viçeṣabhāvād*

viçeṣābhāvāc ca seems to be parallel with *prakarṣabhāvābhāvam apekṣya* so the translation of the first two sūtras would run thus:

sūtra 11. [The use of the expressions: 'it is] small' [and 'it is] large' [with reference to the same object] results from the existence of the peculiarities [smallness and largeness] and the non-existence of [these] peculiarities in it; [i. e. from the limited existence of these distinctive qualities in it].

sūtra 12. Because [they inhere] at the same time [in the same object].

The translation of sūtra 13 remains verbally the same as the one, given by Nanda Lal Sinha, although its interpretation must be changed. — Sūtras 14—16 state that minuteness and magnitude do not inhere in minuteness and magnitude according to the general rule that quality does not inhere in quality. Another consequence of the same thesis is that minuteness and magnitude do not inhere in quality and action in general. Candrakānta Tarkālaṃkāra's interpretation of sūtra 16 breaks the consistence of the system. On the other hand his interpretation of sūtra 20 in which *parimaṇḍala* would refer both to atomic and infinitely sphericity is worthy of notice.[1] — Sūtra 21 is explained by Çaṃkara Miçra in the following way: (Bibl. Ind. p. 305; translation Nanda Lal Sinha p. 228): „. . . it is admitted by those who hold the doctrine of of *anyathā-khyāti*, illusion of the senses, that everywhere unscientific knowledge (*apramā*) is just preceded by scientific knowledge (*pramā*).[2] So that true concionsness of minuteness as well as true consciousness of shortness, should be inferred. This is the meaning. In like manner, secondary use of words (*bhāktaḥ çabdasaṃyogaḥ*) being impossible without the primary use (*mukhya*), minuteness and shortness, in the primary sense of the terms, must be thought of to be present somewhere." — In the comments of sūtra 24 Çaṃkara Miçra says (Bibl. Ind. p. 308; translation Nanda Lal Sinha): „*guṇaiḥ*": by qualities i. e. by qualities, characterised as priority and posteriority inherent (*niṣṭha*) *in all dense bodies*, and appearing in the forms of the *intuitions* of the east, the west &c. *common to all persons* inhabiting all the inlands or divisions of the globe . . ." We may notice that two facts are expressed in this *vibhutva* of space: 1. that all persons have notions of space; 2. that all things are in spacial relations to one another. — In the comments of

1) Cf. however Praç. Bhāṣya p. 131 l. 24.

2) Cf. here book IV section VII table C n°. 31 and Gaṅganātha Jhā, Sadholal Lectures p. 63.

sūtra 25 Çaṃkara Miçra gives four arguments for the *vibhutva* of time, which can really be reduced to two: 1. *all persons* form temporal notions — or (to express it more in the terms of the original) when people use words like posterior, anterior &c., then time is the efficient cause of these words through the intermedium of the notions, whilst physical space, the medium for sound, is the *samavāyi-kāraṇa* of these words — 2ly, time is known to be the efficient cause of *all that is produced*. In the insertion of Nanda Lal Sinha's „specific" seems to refer to time as a cause of our notions and „universal" to time as a cause of all things. Strangely enough *vibhutva* with reference to space and time is explained here in the same way, namely, both as general applicability and as general conceptibility; but the great difference in our concepts of time and space are totally ignored.

§ 5. *Appreciation of the Vaiçeṣika theory of space and time.*

Finally I shall attempt to shortly formulate my appreciation of the Vaiçeṣika theory of space and time:

1. The tri-dimensionality of space has not been sufficiently understood (See V.S. II, 2, 14—16; VII, 1, 8 & 17, where only *aṇu*, *mahat*, *hrasva* and *dīrgha* are summed up, thus only cubic and lineal quantities).

2. The twofold mensuration of space: direction and distance, is expressed in the sutra II, 2, 10 and II, 2, 14.

3. The non-inversable order of time is presupposed in VII, 2, 22.

4. The notions „infinitely small" and „infinitely great" are not yet sufficiently analysed; the notion of „continuance" is not yet attained. Even in later Vaiçeṣika philosophy the analysis of the notion *aṇutva* has remained unsatisfactory. Similarly the notion of time as a 'quantum continuum' has never been grasped; the Vaiçeṣikas have never learnt to understand that comparison of temporal durations — similarly as the comparison of spacial distances — leads to the idea of irrational number and in connection with this to the mathematical notion of infinitesimal; their *kṣaṇa*s have always remained to them indivisible moments, time-atoms.

§ 6. *Passages in the Praçastapāda-Bhāṣya on time and space.*

The passages in the Praçastapāda-bhāṣya wich refer to time and space, and to temporal and spacial relations, are principally the following (see here book IV table 3 and 4): Praç. Bh. book II

(substance) chapter I (characterisation of the nine substances) § 13 p. 25; then the two special chapters on time (book II chapter 8 p. 63) and space (book II chapter 9 p. 66); further the paragraphs in book III chapter 2 (nam. § 8 *parimāṇa* and § 12 *paratvāparatve*) and finally in book IV (*karman*) § 16 (absence of movement in *kāla* & *diç*.

In the first of these passages mentioned (bk. II ch. 1 § 13) time and space are both called *nimitta-kāraṇa* of all things. In the comments of ÇAMKARA MIÇRA's on sūtra V, 2, 25 & 26, however, space is called an *asamavāyi-kāraṇa* and only time a *nimitta-kāraṇa*. Since this explanation is evidently supported by the context of the Darçana, it seems probable that in Praçastapāda's time the passage V.S. V, 2, 23—26 did not yet exist (cf. here p. 29 § 1 sub 7).

The special chapter on time in PRAÇASTAPĀDA's Bhāṣya does not contain much that is new in comparison to the sūtras. It mentions the *parāparavyatikara*, the reciprocity of posterior and anterior, so that it seems probable that the Bhāṣyakāra still has read *parasminn aparam* in sūtra II, 2, 6. — Time is called both the *nimitta-kāraṇa* of human notions concerning temporal relations and duration, and the *hetu* of the origination, existence and perdition of things (cf. Çaṃkara Miçra's comment on VII, 1, 25). Praçastapāda understands *tattva* in II, 2, 8 as *ekatva*. He quotes literally (under the formula *iti-vacanāt*) V.S. VII, 1, 25 and VII, 2, 22. The *nānātva* of time is explained by the *upādhis*, here the two similes of the *maṇi* and the *pācaka*, already known from Sāṃkhya sources, are brought in. The *nānātva* of time is not explicitly mentioned in the Sūtras (for CANDRAKĀNTA TARKĀLAṂKĀRA's interpretation of II, 2, 13 cannot be accepted), but was certainly implied.

Neither does the chapter on space add anything new to the discussion in the sūtras. The qualities, attributed to the one space, are the same as those belonging to time and — with the addition of *çabda* — to physical space (See here book IV section IV table D).

In the passage on *parimāṇa* we find the same unsatisfactory division as in the sūtras, namely the distinction of *aṇu*, *mahat*, *dīrgha* & *hrasva*. Further the following subjects are discussed: — *aṇu* in its eternal form (inhering in *manas* & the ultimate atoms; to these the term *pārimāṇḍalya* is restricted); *aṇu* in its transient from (belonging to the double atoms); the term *aṇu* in its secondary meaning (*bhākta*); — *mahan nityam* & *mahad anityam*; — (*anitye*) *dīrghatvahrasvatve* inhering in the same things as (respectively) *mahattvāṇutve*; — the three causes of *nityam parimāṇam*: namely, *saṃkhyā*, *parimāṇa* & *pracaya* (Transient *mahattva* & *dīrghatva* are

originated in the case of triple atoms by the Lord's *apekṣā-buddhi*; transient *aṇutva* & *hrasvatva* are similarly created in the double atoms); — a question about the difference between *mahat* & *dīrgha*, *aṇu* & *hrasva*, is answered by referring to the distinct use of these terms in language „*mahatsu dīrgham āniyatām, dīrgheṣu ca mahad āniyatām iti viçiṣṭa-vyavahāra-darçanāt*" ('*āniyatām*' = 'one should calculate'?); — the vanishing of *anityam parimāṇam* takes place by the vanishing of its abode.

Paratva and *aparatva* are not qualities of space and time, but of the things which abide in them (cf. here book IV section IV table D). These qualities are not perceived directly, by the senses; but are obtained by reasoning. They are called in Praçastapāda-bhāṣya (book III ch. 2 § 12) the causes (*nimitta*) of the terms and notions *para* and *apara*. Further this paragraph contains a long discussion on the origination of *dikkṛte paratvāparatve* (the state of being farther or nearer than a certain point, with reference to an observer) and *kālakṛte paratvāparatve* (the state of having happened previous to, or later than a certain event). After this discussion, the author still more broadly dwells upon the vanishing of these notions. I should like to insert here the translation of the passage, dealing with *dikkṛtaṃ paratvam* (Pr. Bh. p. 164 l. 6—11): „When two objects, lying in the same direction [from the observer], are conjoined to the [place] conjunct [with the observer; i. e. with the spot on which he stands], respectively by many and few conjunctions; then, in case he makes the neighbouring object [i. e. the object conjoined by few conjunctions] his starting-point, there will arise [in the soul] of this one observer a „remote intellection"; [an intellection, which resides] in the abode of *paratva*, [and which can be expressed by the words]: 'This is remote compared to that'. Then, on the basis of this [intellection] the quality '*paratva*' is originated by the conjunction [of this thing] with this farther spot of space." — In order to understand this passage we must remember that every soul (just as well as space, time, and physical space) is omnipresent. Therefore a thought, arising in the soul, can be at the same time located in a certain object. And similarly as we have formerly seen that the human intellection 'twoness' creates in the things the corresponding quality, so will the intellection '*paratva*' create the quality '*paratva*'. This parallelism in the theories of number and distance becomes more striking in Praçastapāda's discussion of '*paratvasya vināçaḥ*'. I have summarised his ideas on, this point in the appendix to this chapter. We may notice there that similar steps occur in the processes of *paratvasyotpatti-vināçe*

as in those of *dvitvasyotpatti-vināçe*. The *apekṣā-buddhi* is followed by the origination of [the quality] '*paratva*'; this by a *paratva-sāmānya-buddhi*; this again by a *paratva-guṇa-buddhi*, and this in its turn by a *dravya-buddhi*. The causes of the vanishing of the quality '*paratva*' are three in number: 1. the vanishing of the relating intellection; 2. the vanishing of the conjunction between the thing and its previous spot in space (in which case the object begins to move in the same *kṣaṇa* in which the relating knowledge arises); 3. the vanishing of the thing itself (in which case one of the portions which make up the thing in question begins to move just one *kṣaṇa* before the arising of the *apekṣā-buddhi*; then namely the quality *paratva* is destroyed by *dravya-vināça* at the moment immediately following its own origination. Moreover the Bhāṣya-kāra has constructed four complicate cases (by putting case 1 with case 3; 2 with 3, 1 with 2, and finally 1, 2, 3 together).

An Indian View of 'Present Time'

M. Hiriyanna

In his recent works, Prof. Whitehead has emphasized the importance of conceiving the present as a duration and not as an instant.[1] We propose to refer here to a striking parallel to this view in the history of Indian thought. It will be best to begin by translating into English, from an old Sanskrit work[2], a passage bearing upon the subject :

'In the matter (of the three-fold division of time into the past, present and future) —

OBJECTION —

Aphorism 39. —There is no present (time) since of a falling (body for instance), the time during which it has fallen and that during which it has yet to fall furnish a sufficient explanation.

Commentary.—When a fruit loosened from the stalk is nearing the ground, what is above (it, at any instant) is the path through which it has fallen and the time connected with it is past time; what is below is the path through which it has yet to fall and the time connected with it is future time. Now there is no third (part of the) path with reference to which present time (supposed to be implied in 'falls') might be understood. Hence there is no present time.

REPLY —

1. Cf. *e.g.*, *Principles of Natural Knowledge*, page 64

2. *Nyāya Aphorisms* of Gautama, with Vātsyāyana's Commentary II, i, 39-43.

Aphorism 40. — Those two (i.e. past and future) also disappear if present (time) is not (admitted), they being dependent upon it.

Commentary. — Time is not indicated by space. How else then? It is indicated by action as, for example, 'falling'. When the action of falling ceases, that is past time; when the action is yet to be, that is future time. When action is apprehended as existing in an object, it is present time. If one does not think of the action of falling characterising an object, whose cassation or future origination can one contemplate? Past time is in reference to past action; future time, to action that is yet to be. In both kinds of time, the object is without action; when (an object) is 'falling', it is connected with action. (Thus) present time refers to the object as related to action. And if that is not (admitted), the two other kinds of time depending upon it would themselves cease to be.

AGAIN —

Aphorism 41. —Past & future are not mutually dependent.

Commentary. — If past and future could be conceived as dependent upon each other, we might agree to the repudiation of the present. (But) the furture is not dependent on the past, nor the past on the future. Why (so)? Because it would be impossible to define from what standpoint it is past, how the future is dependent upon the past and from what standpoint it is future. The rejection of the present is (besides) opposed to the presuppositions of grammar.[3] One might think that just as 'short' and 'long', 'hill', and 'hollow', 'light' and 'shade' depend upon each other, past and future also might do. That is not (however) necessarily so, for there is no differentiating circumstance. As there are illustrations, so there are counter-illustrations also–thus 'colour' and 'touch', 'odour' and 'taste' are not mutually dependent; so also (may be) past and future. Mutual dependence, (we might,

3. *I.e.* there is no linguistic support for it.

on the contrary, maintain) leads to the establishment of neither. For when one is not, the other also is not and both will thus cease to be. If the existence of the first is dependent upon the second, on what is the second (just then) dependent? If the existence of the second is dependent upon the first, on what is the first (just then) dependent? Thus when one is not, the other also is not; so both will disappear.

Present time is indicated also by the *being* of an object, *e.g.*, the *being* of a substance, of a quality, of an action.[4] To one that does not recognize this (i.e., the indication of present time by *being*) —

Aphorism 42. — Nothing would be known, because there can be no perception in the absence of present time.

Commentary. — Perception arises from contact of senses with objects. What is not at the time, *i.e.*, the non-existent cannot come into relation with the senses. This (our opponent) does not admit that anything is *present*, (so that) the means of perception, the object of perception and perceptual knowledge—all become impossible. And if perception be impossible, there can be no inference or verbal testimony which have their bases in it. If all means of knowledge be cut off, nothing would be known.

Present time is (thus) indicated in two ways–first by the *being* of objects as for example in 'a substance is'; secondly, by a series of actions, as for example 'cooking' or 'cutting'. A series of actions may be (i) multiform and serving a single purpose, or (ii) repeated action. Multiform and serving a single purpose is the action of 'cooking', for instance, (which consists of) putting vessel on fire, pouring in of water, filling with rice, placing fuel, kindling fire, stirring with spoon, pouring out gruel and taking down (vessel). 'Cutting' is an instance of repeated action. A man is said to 'cut' when he frequently lifts up an axe and lays it, say, upon a log

4. The word 'object' as here used should be understood in this wide sense and not merely as meaning a *concrete* thing.

of wood. Both these, *viz.*, what is cooked and what is cut, may be described as what is acted upon. Since in an object acted upon—

Aphorism 43. — There may be the state of having been acted upon and the state of going to be acted upon, a two-fold apprehension (of present time results).

A series of actions not yet begun but intended to be, gives future time, *e.g.*, 'he will cook'; the cessation of the series accompanied by its result gives past time, *e.g.*, 'he has cooked' and a series of actions begun, gives 'present time', *e.g.*, 'he cooks.' Here a complete (action) means (in the object) the state of *having been acted upon*; (an action) which is to come about, the state of *going to be acted upon* and (an action) which is going on, the state of *being acted upon*. Thus all the three kinds of time are involved in a series of actions, and are known by knowing the present, such as 'he cooks' or 'something is cooked'. Here the continuance of the series of actions is avowed; neither its non-commencement, nor its completion. (Thus) the present in known in two ways–as dissociated from the past and future and as associated (with them)–(the first), that which is indicated by the *being* of an object as in 'a substance is' ; (the second), that which, as in 'cooking' or 'cutting', expresses a continuing series of actions and involves the three-fold time. Other forms of common usage where (the present tense) is meant to indicate nearness, etc. (to present time), should also be noted (in this connection).[5] Therefore present time does exist."

Here is represented a controversy between two schools of thought – one, which denies the present and the other, which admits it. We are now concerned only with the latter. It is known as Nyâya and may be described as a realistic and pluralistic system.

5. *E.g.*, 'I go' for 'I shall go'. Here again is an appeal to linguistic usage in supp-rt of present time. The use of 'I go' for 'I shall go' is secondary and a se[illegible]ary use always implies the primary. See Vācaspati's Commentary, p. 284.

It separates substance from quality, universal from particular, etc., regarding each as an independent reality. So far as our present purpose is concerned, it recognizes, among other ultimate entities, absolute time. The discussion here, however, is not in respect of it but relative or empirial time. The Nyāya does not admit the latter as such to be an objective fact and explain its notion as arising from the association of absolute time with something else. The same absolute time comes to be described as past, present and future through such association, as the same person might, for instance, be described as father, son etc., from different points of view.[6] While some Indian Thinkers maintain that objects involved in action (*kārakas*) serve as the index of relative time[7], the Nyāya maintains that it is action itself. To take the illustration given in extract, a falling body may be said to involve a reference to three things – what falls, *viz.*, the fruit here, the space through which it falls, and the action of falling. Of these, neither the space nor the fruit can be said to indicate time; for the space remains the same always and the fruit also at any two stages in the course of falling is in itself the same. They connot thus be described as either 'past' or 'future'. It is only the action of falling that can so be described.[8] The view of action being the index of time, implies the conception of the present as a duration for, according to the system, all action must last for at least four instants,[9] and there can be no instantaneous action. The duration of the present signified cannot accordingly be less than four instants but it may be more.

Now as regards the meaning which the system attaches to past

6. See *Nyāya-Vārtika*, p. 253 (Benares Edition).

7. See Vācaspati's Commentary, p. 281.

8. Cf. *Nyāya-Vārtika*, II, i, 40.

9. See *Dinakarīya* on *Muktāvalī*, i, 46 : *prathamakarmaṇaḥ kṣaṇa-catuṣṭayāvasthāyināḥ*. According to the atomism of the system, 'action' is supposed to operate through 'disjunction' and 'conjunction' each of which occupies two instants. See A.B.Keith, *Indian Logic and Atomism*, pp. 190 and 223.

and future. These are not significant without reference to a third factor. 'Before' and 'after' are meaningless unless they are referred to something different from either, *viz.*, the present which, as we have seen, is known through action. Thus past and future also refer to action though only through the present, and they mean respectively the time when some action or other we have in view is over or is yet to be. If we now consider the object involved in action we find that it is characterised by action in what is described as the present, but not in what is described as either the past or future. Hence we often apply epithets suggestive of past and future to objects, but we do so only secondarily. For instance, we distinguish a 'fallen' fruit from the same in the state of 'going to fall' ; though the fruit in itself is the same if we think of it apart from action. It is this secondary use of past and future with reference to objects that accounts for the misconception. Alluded to above, that objects and not action are the index of time.

Objects not associated with action also may indicate time, but it can be *only* present time. This is what was described above as the present known through the *being* of objects. An object like a fruit, it is believed, arises from a certain concourse of atoms which continues only for a time. In other words, produced objects come into relation with time[10] and their *being* may therefore be a sign of it. There is however this important differnce between time as thus indicated and the same as indicated by action. While both equally signify the present, the latter involves in addition a reference to past and future within itself. 'Cooking', for instance, comprehends various minor actions; and, at any stage some of them may have been over and others may have yet to make their appearance.[11] Thus, though the whole series of actions when regarded as one *viz*, 'cooking' indicates only present time, each

10. Ultimate entities which are eternal are not *in* Time.

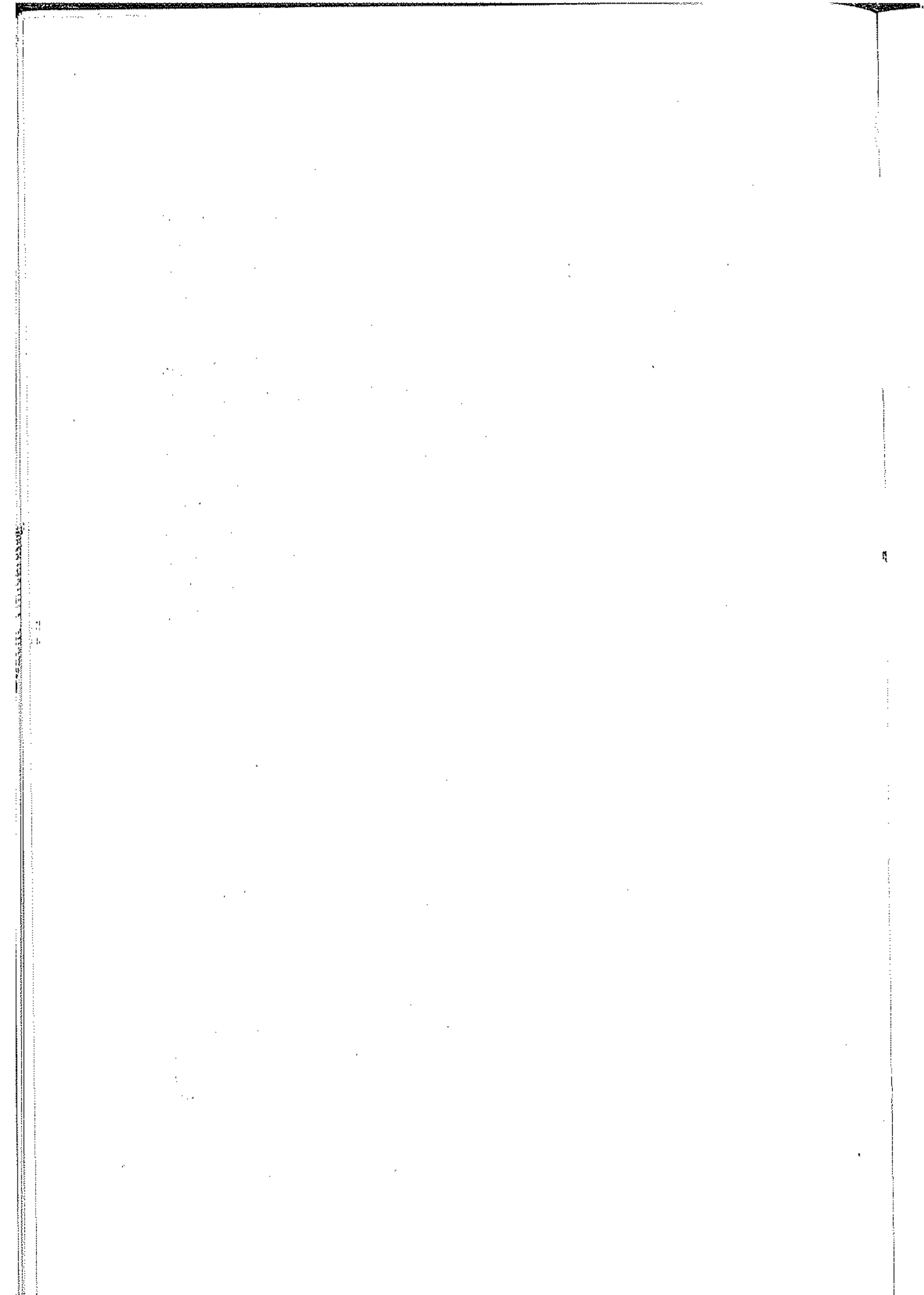
11. See *Nyāya-Vārtika* II, i, 43.

member of the series may give rise to the conception of the three-fold time. The fire, for instance, may have been kindled ; it may be in the process of being kindled or it may be going to be kindled. In the case of *being*, on the other hand, no such internal distinction is possible, and an object, so long as it *is*, signifies only present time.[12] This view also implies that the present is a duration; for an object, according to the system, should last for at least two instants[13] though, of course, it may last longer.

It will be seen, even from the few references which we have found necessary to make to the Nyāya philosophy, that there are several points in its conception of Nature (*e.g.*, recognition of absolute time) wherein it differs from modern science. Yet there is a clear resemblance between the two as regards the view they take of 'present time'. This view may be summarised as follows: The present is always a duration, though its breadth may vary and need not necessarily be the same wherever present time is apprehended.

12. Commonly, no doubt, we talk of an object as *having been* or *going to be* ; but there exists nothing then whose states these expressions may be taken to describe. (See Vācaspati's Com. p. 284). For the Nyāya does not believe in the unity of Nature and, further, explains objects like the fruit as coming into existence *anew* and passing out of it *finally*.

13. I.e., the moments of origination and abidance. The earliest instant when an object can perish is the third. Some among the followers of the Nyāya admit instantaneous objects as a mere theoretic possibility (compare *e.g., Tarka-saṁgraha-Dīpikā* : Bombay Sanskrit Series : Section 10) but, generally speaking, it is recognized that objects, specially perceivable objects and therefore all such as indicate present time, must last longer than an instant. See *Nyāya-mañjarī*, pp. 458 and 463.



Kāla [in Nyāya-Vaiśeṣika]

Umesh Mishra

1. *Defined and existence proved*

Besides what has been said above in the previous section about the necessity of believing in the existence of a principle termed time or *kāla*, and its rational definition, it may be pointed out that in the classical works we find that the necessity to have a substance like time is to explain the more common notions of the relations of priority and posteriority, of simultaneity and succession, of late and soon,[72] and of the various usages of *kṣaṇa*,[73] *lava*,[74] *nimeṣa*,[75] *kāṣṭhā*,[76] *kalā*,[77] *muhūrta*,[78]

[72] Vyom., p. 349.
[73] *Vide* supra, pp. 127-28, Ft.-note, No. 213.
[74] It is equal to two *kṣaṇas*—Vyom., p. 349.
[75] This is equal to two *lavas*—Ibid.
[76] *Kāṣṭhā*=15 *nimeṣas*—Ibid.
[77] *Kalā*=30 kāṣṭhās—Vyom., p. 350.
[78] *Muhūrta*=30 *Kalās*—Ibid.

watch (*yāma*), day and night, fortnight, month, season (*ṛtu*), year, solstice (*ayana*), *yuga*, *kalpa*, *manvantara*, *pralaya* and *mahāpralaya*.[79] These notions[80] are not found to be associated with the other substances, namely, earth, water, *tejas*, air, *Ākāça*, *Dik*, *Ātman* and *Manas*. Nor can we have any doubt about the reality of the above mentioned notions. Hence, that to which these notions are attributed is termed as *Kāla* or time.

The notions of priority and posteriority in relation to time are based on the movements of the sun (*ādityaparivartanāni*). In other words, that object which possesses larger number of contacts with the movements of the sun is called *para*, while that which has smaller number of contacts is termed *apara*.[81] This necessitates the contact of the object and the movements of the sun. But what sort of contact is possible here? As the two objects between which the contact is established are far away from each other, there can be no contact, called *saṃyoga*. Nor can there be *saṃyuktasamavāya* as the sun and the object do not possess any contact. This very reasoning removes the possibility of *saṃyukta-samavetasamavāya* also. Again, as the movement of the sun inheres in the sun alone there can be no *samavāya* between the object and the movement of the sun. This also rejects the possibility of *samavetasamavāya*. Hence, none of the categories of earth, water, *tejas* and air can be the connecting link between the two; for, neither that which is connected with the object is connected with the sun, nor *vice versa*. The view—that a particular kind of *tejas* belonging to the sun may act as the connecting link—is not sound; for, such a *tejas* would not be able to come in

[79] PPBhā., p. 63.

[80] The notions of the relations of priority and posteriority etc. meant here should be distinguished from those which relate to *Dik*. PPBhā., pp. 164-67.

[81] *Janmanaḥ prabhṛtyekasyādityaparivartanāni bhūyāṃsīti paratvam, anyasya cālpīyāṃsītyaparatvam*-Vyom., p. 343.

contact with the objects lying in the dark depths of the earth. In order to connect all the objects of the universe with the movements of the sun, it is essential to have an all-pervading substance.[82] This rejects the possibility of *Manas* also.

Amongst the all-pervading substances, *Ākāça* cannot form the desired link; for, it cannot transmit the attribute of an object with which the former is connected by the relation of *saṃyuktasamavāya* to another. If it were so, then when one particular drum is beaten, sound ought to have been produced in all the drums,[83] which is not the case. Hence, *Ākāça* cannot connect the movements of the sun with other objects (*ākāçasya kriyopanāyakatve'yamatiprasaṅgaḥ*).[84] Similarly, *Ātman* also, not being capable of transmitting the attribute of one object to another, cannot be the connecting link; for, otherwise the colour of one particular object found at one particular place should have been transmitted to another place through the same relation of *saṃyukta-saṃyukta-samavāya*.[85] Therefore, *Ātman* also cannot serve the purpose.

After eliminating these, they believe in the existence of a category termed *Kāla* or time, which through the relation of *saṃyukta-saṃyukta-samavāya* links the

[82] *Na ca sūryagatiḥ sākṣātpiṇḍasambaddhā, nāpi saṃyuktasamavāyaḥ sambhavati piṇḍasūryayoḥ saṃyogābhāvāt.....pṛthivyādiṣu yatpiṇḍaprāptaṃ tanna sūryasambaddhaṃ, yatsūryasambaddhaṃ tanna piṇḍaprāptamityaprāptiḥ kiñcit sauraṃ tejaḥ piṇḍasūryobhayasambaddhamastīti cenna; kvacitpiṇḍe tathā bhāve'pi bhūnikhātādau tadabhāvena vyabhicāraḥ. Evñcaitādṛçamekaṃ dravyaṃ svīkāryaṃ yat yāvatpiṇḍasūryasambaddham*—KVBhā., p. 137.

[83] *Na ākāçasya svapratyāsattimātreṇa saṃyukta-samavāyinaṃ dharmamanyatra saṃkrāmayitumasamarthatvāt. Tathātve caikatra bheryāmabhihatāyāṃ sarvabherīṣu çabdotpattiprasaṅgāt*—KV., p. 115.

[84] KVBhā., p. 138.

[85] *Ātmano'pi dravyāntaradharmeṣu dravyāntarāvacchedāya svapratyāsattyatiriktasannikarṣāpekṣitatvāt. Anyathā vārāṇasīsthitena nīlena pāṭaliputrasthitasya sphaṭikamaṇeruparañjanaprasaṅgāt*—KV., pp. 115-16; KVBhā., p. 139.

movements of the sun with each and every object of the universe. The difficulty felt in the case of *Ākāça* and *Ātman* is not at all present here; for, it is the very nature of *Kāla* to do so, due to which it is said to be *kriyāmātropanāyaka*, while *Ākāça* and *Ātman* are not so.[86]

It may be urged here that if the notions of simultaneity and the rest depend upon the movements of the sun, why is not then the movement itself accepted to act as the cause of these notions? The reply is that it is not possible; for, these are not possible from the movements of the sun alone, nor are the objects of the universe expressed in terms of the movements of the sun alone.[87] Again, as to the view—let motion (*kriyā*) itself be the *Kāla*, it is said, if it were so, then there would have been no notions of simultaneity and the rest; for, a *kriyā* is known as *kriyā* and not as a notion (*pratīti*) or *Kāla*.[88]

2. *Attributes of Kāla*

Having thus proved the existence of *Kāla* as a separate category, we now proceed to consider some of the more important qualities of it.

The very nature of *Kāla*, as has been made clear above, shows that it must be all-pervasive.[89] This alone makes the notions of priority and posteriority etc. common to all people of all the countries possible. This is further supported by the fact that time is said to be the instrumental cause (*nimittakāraṇa*) of each and every product.[90] From this it also follows that it is

[86] KV., p. 115; KVBhā., p. 138; VU., II. ii. 6., p. 99; KR., p. 32.

[87] *Ādityaparivartanamevāstu kiṃ kāleneti cenna; yugapadādipratyayānumeyatvāt. Na cādityaparivartanādeva yugapadādipratyayāḥ sambhavantīti. Ekasminnevādityaparivartane sarveṣāmanutpādāt, vyapadeçābbhāvācca*—Vyom., p. 343.

[88] Ibid.

[89] PPBhā., p. 63.

[90] VS., III. ii. 2, 9; VII. i. 25; NS. and NBhā., II. i. 23.

eternal and is a substance."[91]

Kāla is the instrumental cause (i.e. the substrate—*ādhāramātra*) of motion. The judgments expressed in the form—'Going at present' etc. refer to time as a substrate of motion.[92] It is also the support (*āçraya*) of the worlds.[93] It is, therefore, said to be the cause of the production, existence and destruction of every product, as these are all expressed in terms of time.[94]

It is supersensuous[95] and has no specific quality.[96]

It is an auxiliary (*upanāyaka*) of motion (*kriyā*) alone.[97]

As it is all-pervasive and connects the objects of the universe with the movements of the sun, it is said to be only one. The various notions of time are due to certain limitations (*upādhis*) in the form of *kriyā* which consists of a series of movements (*kṣaṇas*) of which some are past, some are present, while some are still to come. It is, therefore, that the three divisions of time are attributed to *kriyā* also. Thus, for instance, since the placing of the cooking-pot on the hearth for cooking food and upto the time of its taking off from the hearth, the *kriyā* expressed by the term '*pacati*,' is called '*present*' and so is the time limited by that *kriyā*. The series of *parispandas* past with reference to

[91] PPBhā., p. 64.

[92] *Nimittakāraṇatvenādhāramātram karmaṇaḥ kālo na tu samavāyī*—VU., on VS., V. ii. 26. *Idānīṃ gacchatītyādipratītistu idānīṃ ravītītyādipratītivāt kālikasambandhāvacchinnādhārādheyabhāvamavagāhate na tu samavāyasambandhāvacchinnamiti*—VV. on VS., V. ii. 26. But VBhā., holds that it refers to the non-material cause—*Kālopyasamavāyikāraṇaṃ karmasviti*—Ibid.

[93] BhāP., verse 45.

[94] PPBhā., p. 63.

[95] KV., p. 40; Kandalī., p. 64., VU., VIII. i. 22.

[96] KV., p. 40.

[97] *Na tāttvikaḥ kālasya bhedo varttamānādiḥ, kintvasannapyasau vyavahārasiddhaye kena cidupādhinā kalpyate. Kaḥ punarasāvupādhiḥ, kriyeti brūmaḥ* etc. NM., pp. 139-40; KV., pp. 120-21; Setu., p. 335.

the accomplished result expressed as '*apākṣit*' (cooked), denotes past action and the time limited by it is known as '*past*'. Similarly, the *kriyā* which will take place with reference to a result not begun and which is expressed by the term '*pakṣyati*' (will cook) is known as future action and the time limited by it is expressed as '*future*.'

Some, however, are of opinion that these divisions of time are, in fact, present in the very nature of time and are not due to any limitation.[98]

Again, it itself establishes limitations (*upādhis*) which are constant. Thus, when one thing is present in time with reference to another thing, then the latter also is present with reference to the former.[99]

The use of priority and posteriority due to *Kāla* is common to all. That is, that which is present for one is present for all people living at that moment, unlike the *Dik* according to which, on the other hand, that which is the east for some, becomes west for others living at that very period of time.[100]

3. *Present time discussed*

There is a view that of the three divisions of time, that which is known as present has no existence at all. What we find, for instance, in the case of a fruit falling down from a tree, refers either to the past or to the future.[101] In other words, when the fruit leaves the stalk and is falling down, then the space, which has been already covered by the fruit, is called the fallen area of the space and the time referring to it is called '*past*;' while the space, which is still to be

[98] KVBhā., p. 144.

[99] VU., II. ii. 10.

[100] *Api cāyaṃ vyavahāro yadi kālakṛtaḥ syāt sarvasādhāraṇaḥ syāt. Tathā ca yathā vartamānaḥ sarvān prati vartamānaḥ, tathā prācī sarvān prati prācī syāt; na caivaṃ kasyacidapekṣayā pratīcītvāt*—KVBhā., p. 147.

[101] NS., II. i. 40.

covered before reaching the ground, is called the area of space which is still to be fallen through, and the time which refers to it is called '*future*.' There is no other space left with reference to which the time will be called '*present*.' On this ground, the existence of *present* time is denied.[102]

To this the *Nyāya-Vaiçeşika* says that if there were no present time, then there would have been neither the past nor the future; for, both these depend upon the present itself.[103] In other words, time is not denoted in the terms of space, but it is manifested by *kriyā*;[104] so that, when the action of falling down stops, then that time is called '*past*;' while that time at which the action of falling will be produced is called '*future*;' and the time when the action of falling is cognised to be going on is called '*present*.' If, on the other hand, the opponent does not cognise the action of falling as going on, then with reference to what would he say that the action of falling has ceased, or is going to be stopped? On the other hand, when we say that 'the time has fallen,' we mean that the action of falling down has ceased, and when we say that 'the time is to fall,' what is meant is that the action of falling down is to take place. In both the cases, the object falling is devoid of *kriyā*. Again, when it is said that the object is falling down, then the object falling is really connected with *kriyā*. This sort of connection does not exist in the above mentioned two cases. Hence, what the present time does is to connect the object falling and the action of falling down. The other two divisions of time depend upon this present time without which the other two would not exist.[105] The exact implication of

[102] NBhā., II. i. 40.

[103] NS., II. i. 41.

[104] We should know that the word *kriyā* here stands for a general *kriyā* and not merely for *spanda*-Bhāşyacandra, p. 300.

[105] NBhā., II. i. 41.

the term '*past*' is that the connection of the object with the action of falling down is over; and that of the '*future*' is that the connection of the object with the action is still to come. In both the cases, it is the action of falling down which is the point to determine the past and the future; so that, time, in fact, is ever '*present*.' The notions, like 'it has fallen down,' 'it is falling down,' and 'it will fall down,' are connected with the action of falling down, and hence, they appear only in the action and never in the result. This makes it clear that it is the *kriyā* (action) which manifests time and not the space (*adhvā*).[106]

Moreover, the present time is the indicator of the existence of things, as is clear from the expressions 'a substance exists,' 'an attribute exists,' 'motion exists' etc. where the term '*exists*' denotes the present time. So says the author of Nyāyasūtra—'In the absence of present time nothing is cognised, as no perception is possible.'[107] In other words, perception is due to the sense-organ and object—contact; and that which is not present cannot be in contact with the sense-organ. The opponent does not believe in anything which is present or existing; so that, the cause of perception, the object of perception, and the cognition through perception itself, nothing can exist. Thus, perception being denied, all the other proofs of right cognition, namely, inference etc. would also be denied. This leads the opponent to deny practically everything of this universe,[108] which, of course, is simply impossible to accept.

4. *Direct perceptibility of Kāla discussed*

Some are of opinion that *Kāla* is an object of direct perception; for, it is found as a qualification (*viçeṣaṇa*) of the notions of *kārya*. The notions of

[106] NV., p. 254.
[107] NS., II. i. 43; VP., kāṇḍa i, verse 37.
[108] NBhā., II. i. 43.

succession, simultaneity, soon, and the rest, do not depend upon *kārya* alone.[109]

To this it is asked: how would *Kāla* which has no colour be an object of perception through eyes? How can even the colour itself which is colourless be an object of perception through eyes? How can the *paramāṇus*, having no colour, be an object of perception through eyes? That is to say, the possession of colour is not the only cause of perception through eyes. Hence, both, the perception and the non-perception of a thing depend upon the worldly belief (*pratīti*); so that, we should try to find out the belief about the perception of *Kāla* through eyes and not the cause of perception in the form of possession of colour and the rest.[110]

It is further argued that if you hold that the convention—that which possesses colour can be perceived through eyes—is applicable to substances alone and not to the qualities, then it should be pointed out that it is not applicable to substances even; for, if it were so, then the *paramāṇus* which possess colour should be perceived through eyes, which is not the fact. Hence, the convention ought to be understood in the sense that that which is perceived through our eyes possesses colour. To this it is said that this is not the Divine injunction which cannot be transgressed. We cannot decide the perceptibility and otherwise of anything on the basis of utterance merely. Truly speaking, the perceptibility of a thing means its being an object of cognition through the sense-organ and it is found in the case of *Kāla*; so that, although it does not possess any colour, yet its perceptibility cannot be denied. Hence, there is nothing to deny that *Kāla* is perceived through eyes.[111]

[109] NM., Āhnika 2, p. 136.
[110] NM., Āhnika, 2, p. 136.
[111] NM., pp. 136-137.

Now, it may be further urged that if it be so; then why is not *Kāla* perceived through eyes independent of anything else without the qualification of a notion of a *kriyā*, like a jar? To this the answer is that it is the very nature of it and should not be questioned. It is known as a qualification (*viçeṣaṇa*) of some substance having colour and not like a stick which is known independent of anything else. On the other hand, there is no perception of *Ākāça* and the rest even as a qualification (*viçeṣaṇa*), and so it is not an object of perception which is not due to its not possessing colour. If it be said that the perception of the *viçeṣaṇa* even is possible only when it possesses colour, like a stick used as a *viçeṣaṇa* (adjective) of a man, as in the expression *daṇḍī puruṣaḥ*, which possesses colour; and *Kāla* as a *viçeṣaṇa* does not possess any colour; so that, it cannot be perceived.

But this argument is denied on the ground that a *viçeṣaṇa* even when does not possess any colour is perceived through eyes; for instance, generality (*sāmānya*) and the rest. Regarding the view that such a rule is applicable to substance alone, it has already been said that that which is an object of cognition through the organ of sight is really visual (*cākṣuṣa*) whether it possesses colour or not and whether it is a substance or not. Thus, when we speak of a piece of gold that it is a weighty substance, the weight becomes an object of perception and is not an object of inference through the act of falling. That is, that which is cognised through the organ of sight, whether it is known as a *viçeṣaṇa* or as independent of everything else, is an object of perception. Hence, *Kāla* is perceived and not inferred.[112]

Jayadeva Miçra, however, says that although the various forms of *Kāla*, like *prahara* and the rest, are all supersensuous, yet being of the nature of the

[112] NM., p. 137.

movement of the sun, cognition through the *jñānalakṣaṇā*[113] (*upanītabhāna*), as regards *kṣaṇa* even, is possible. *Kāla*, even on account of its being present, although is cognised through the *jñānalakṣaṇā*, yet is perceived through the sense-organ of sight.[114] Bhagiratha Ṭhakkura says—although *Kāla* is not an object of perception through eyes, yet it is apprehended through the *jñānalakṣaṇā*, and as such, we should see whether it is cognised through all the sense-organs.[115] This view is attributed to the followers of Prabhākara Miçra.[116]

5. *Some other views regarding Kāla*

Some astronomers and astrologers are of opinion that the notions of priority and posteriority and the rest are due to *parispanda* (movement). This *parispanda* cannot be that of any human being. It is that of the planets and the stars. Hence, it is the *parispanda* itself which is known as *Kāla*. All the notions regarding the various *upādhis* of *Kāla* are explained by this very *parispanda*.[117] But as the notions referred to above are possible even in the absence of the planets and the stars we cannot accept the above mentioned view.[118]

Kāla is not an object of *pratyakṣa* like a pot etc. The notions of late and soon and the rest which depend upon *kārya* alone cannot be the probans for proving the existence of *Kāla*; for, like smoke and fire no generalisation (*vyāpti*) is found to exist between the

[113] It is one of the three kinds of *alaukikasannikarṣa* between the organs of sense and the objects of perception, where the connecting link is supplied by *jñāna*. As, when a man mistakes a piece of rope for a snake, the cognition he had of snakes serves as the connecting link between the object of sense and the thing perceived, there being no real contact of the organ of vision with a snake in this case.

[114] Āloka on CM-Pratyakṣa, *MS*. Fol. 4b.

[115] KVPA., *Ms*., Fol. 52a; KPP, Vol. I., p. 281.

[116] NK., p. 233.

[117] NM., Vol. I., p. 138.

[118] Ibid, pp. 138-139.

notions of late and soon etc. and *Kāla*. It is not of the nature of the *parispanda* of planets and stars. The notions of *muhūrta*, *yāma*, *ahorātra* and the rest are all imaginary and through these fictitious notions the worldly usage is carried on. There is no possibility of the usage of past, present, and future even if *Kāla* be something which is one, eternal, and all-pervading. Hence, there is no entity as *Kāla*.[119]

It is further urged: let the notions proving the existence of *Kāla* be due to the circumstances peculiar to each case; so that, there is no need of believing in the existence of *Kāla*.

To this it is said that it is not possible; for, in the absence of *Kāla* nothing can be produced. That is to say, no doubt, there can neither be the production of *Ākāça* which has an absolute existence, nor that of man's horn which is absolutely non-existent, but that of something which has no previous existence; and now, if there be no *Kāla* the word '*prak*' (previous) would have no meaning; and as such, the word '*prāk*' as a qualification of the term '*abhāva*,' as it is in the word *prāgabhāva*, being non-existent, there would be no peculiarity which would make it an object of production as distinguished from *Ākāça* and man's horn; and thus there would be no production at all.[120]

There are some who do not hold *Kāla* as a separate entity; for, they say that the notions on which the existence of it is based are found with *Dik* also; hence, they are not true probans of *Kāla*. But this view is also rejected being the utterance of those who are unfamiliar with the limitations of conventions.[121]

It is very difficult to speak of *Kāla* as a power or a force in order to establish *dravyatva* in it[122] without

[119] NM., Vol. I. Āhnika, 2, p. 136.
[120] Kandalī., pp. 64-65.
[121] NML., pp. 40-43.
[122] Hindu Realism, p. 54.

accepting a sort of motion in it, which, again, is not possible in an all-pervading substance as *Kāla* is.

Çivāditya and Candrakānta Tarkālaṅkāra are of opinion that *Kāla* has not got any independent existence. It is included under *Ākāça* along with *Dik*.[123]

Raghunātha Çiromaṇi, on the other hand, includes it under *Īçvara*.[124] It must be remembered in this connection that even then the *kṣaṇa* which is merely a form of time has been accepted as an independent entity.[125]

Veṇīdatta, however, rejects the view of Raghunātha Çiromaṇi and says that the notions which are formed due to *Kāla* are not possible to be explained by *Īçvara*; for, *Īçvara* being one cannot explain the differences in notions as have been found above. We cannot hold that due to certain limitations present in *Īçvara* the differences in notions can be explained; for, if it be so, then let the differences of the all-pervading *Jīvātmans*, namely, 'this is Çaitra,' 'this is Maitra,' and so on, be also explained by the same limitations and do away with the plurality of the *Jīvātmans*; for, with the help of the limitations a single conscious being can explain all the differences found in beings. Hence, the above mentioned view is untenable. Moreover, there is the Çruti also to prove the separate existence of *Kāla*—"*Sa eṣa saṃvatsaraḥ*."[126]

[123] SP., p. 17. Tarkālaṅkārabhāṣyaparīkṣā, pp. 331-34; NML., p. 93.

[124] PTN., pp. 1-3.

[125] Ibid., pp. 58-61.

[126] PMV., pp. 1-3.

LIST OF ABBREVIATIONS

AG——Abhinava Gupta.
AUS——Allahabad University Studies.
ĀV, or ĀTV.——Ātmatattvaviveka.
BG——Bhagavadgītā.
Bhā or BhāP——Bhāṣāpariccheda.
BhāC——Bhāṣyacandra.
BṛU——Bṛhadāraṇyakopaniṣad.
BS——Brahmasūtra.
ChāU—Chāndogyopaniṣad.
CK——Caturakallinātha's Commentary.
DK or NSMD——Dinakarī.
DP——Dravyaprakāçikā.
DS——Dravyasangraha.
DSV——Dravyasangraha-Vṛtti.
DSR——Dravyasārasangraha.
DÇ——Daçaçlokī.
GBha——Gāgābhaṭṭi.
Guṇa——Guṇaratna's Commentary.
HIL or ILV- —History of Indian Logic.
IP——Īçvarapratyabhijñā.
IPV——Īçvarapratyabhijñāvimarçinī.
IPM——Introduction to Pūrva—Mīmāṃsā.
IPR——Indian Philosophy by S. Radhakrishnan.
IPOK——Introduction to Philosophy by Oswald Külpe.

JBBRAS——Journal Bombay Branch Royal Asiatic Society.

Kaṇṭha——Kaṇṭhābharaṇa.

KKH——Kusumāñjali-Kārikā along with Haridāsī.

KM——Karma-Mīmāṃsā.

KP——Kusumāñjaliprakaraṇa.

KPP——Kusumāñjaliprakaraṇaprakāça.

KR——Kaṇādarahasya.

KU or KV——Kiraṇāvalī by Udayana.

KUBhā——Kaṭhopaniṣad-Bhāṣya.

KVBhā——Kiraṇāvalībhāskara.

KVPA——Kiraṇāvalīprakāçikā.

LU or LV——Lakṣaṇāvalī by Udayana.

LVM——Nyāyamuktāvalī on Lakṣaṇāvalī.

MNSā——Nyāyasāra by Mādhavadeva.

MS——Mīmāṃsā Sūtra.

MSS——Madhvasiddhāntasāra.

MU——Muṇḍakopaniṣad.

NAV——Nyāyāvatāra.

NAVV——Nyāyāvatāravivṛti.

NB——Nyāyabodhinī.

NBhā——Nyāyabhāṣya.

NC——Naiṣadhacarita.

NK——Nyāyakoça.

NL. or NLV——Nyāyalīlāvatī by Vallabha.

NLK——Nyāyalīlāvatīkaṇṭhābharaṇa.

NLPV——Nyāyalīlāvatīprakāçavivṛti.

NM——Nyāyamañjarī.

NMJ——Nyāyasiddhāntamañjarī by Jāṇakīṇātha.

NMV or NMuktā——Nyāyamuktāvalī by Viçvanātha.

NMÇ——Nyāyamuktāvalī by Çeṣa-Çārngadhara.

NP——Nyāyapariçuddhi.

NPP——Nyāyapariçuddhiprakāça.

NS——Nyāyasūtra.

NSM——Nyāyasiddhāntamālā.

NSMM——Nyāyasiddhāntamuktāvalī-mañjūṣā.

NSMR or RR——Rāmarudrī.

NSVṛ or NVṛ——Nyāyasūtravṛtti.

NV——Nyāyavārtika.

PC——Padārthacandrikā.

PD——Padārthadīpikā.

PH. or PHṛ——Pratyabhijñāhṛdaya.

PKSS——Pañcāstikāyasamayasāra.

PP——Prakaraṇapañcikā.

PPP——Pramāṇādipadārthaprakāçikā.

PPBhā——Praçastapādabhāṣya.

PR——Prasthānaratnākara.

PRM——Padārtharatnamālā.

PRY——Pratāparudrayaçobhūṣaṇa.

PS——Pāṇini Sūtra and Padārthasangraha.

PSAH or PSH——Positive Sciences of the Ancient Hindus.

PSPM——Prabhākara School of Pūrva-Mīmāṃsā.

PTN——Padārthatattvanirūpaṇa.

PTNR——Raghudeva's Commentary on PTN.

PTVP——Padārthatattvavivecanaprakāçikā.

PV——Padārthaviveka.

PWSS——Princess of Wales Sarasvatībhavana Series.
RP——Ratnaprabhā.
RS——Rasasāra.
SB——Siddhāntabindu.
SC——Siddhāntacandrodaya.
SD——Siddhāntadarçana.
SDS——Sarvadarçanasangraha.
ṢDS——Ṣaḍdarçanasamuccaya.
SK or SS——Sāṅkhyakārikā.
SLS——Siddhāntaleçasangraha.
SP——Saptapadārthī.
SPM——Mitabhāṣiṇī on SP.
SPBhā——Sāṅkhyapravacanabhāṣya.
SR——Siddhāntaratna (and Sangītratnākara on p. 201).
SSS——Sarvasiddhāntasangraha.
ST——Siddhitraya (and Siddhāntatattva on p. 139).
STV——Siddhāntatattvaviveka.
ÇB——Çabarabhāṣya.
ÇBhā——Çaṅkarabhāṣya.
ÇD——Çāstradīpikā.
ÇK——Çabdakalpadruma.
ÇM——Çuddhādvaitamārtaṇḍa.
ÇS——Çāstrārthasangraha.
ÇV——Çlokavārtika.
TBhā——Tarkabhāṣā.
TBhāNP——Tarkabhāṣā-Nyāyaprakāça.
TC or CM——Tattvacintamaṇi.
TD——Tarkadīpikā.

TK——Tarkakaumudī.
TP——Tarkaprakāça.
TPP——Tarkapradīpa.
TR——Tārkikarakṣā.
TS——Tarkasangraha.
TT——Tattvatraya.
TTBhā——Tattvatraya-bhāṣya.
TV——Tattvavaiçāradī.
VB or Vedā——Vedāntatattvabodha.
VBhā——Vaiçeṣikasūtra-bhāṣya.
VEP——Vedāntaparibhāṣā.
VKT——Vedāntakalpataru.
VKTP——Vedāntakalpataruparimala.
VP——Vākyapadīya.
VPS——Vedāntapārijātasaurabha.
VRM——Vedāntaratnamañjūṣā.
VS——Vaiçeṣikasūtra.
VSS——Vedāntasāra by Sadānanda.
VSM——Vedāntasiddhāntamuktāvalī.
VU——Vaiçeṣika-Upaskāra.
VV——Vaiçeṣika-Sūtra-Vivṛtti and Vivekavilāsa.
VVV——Vaiçeṣikasūtra-Vaidika-Vṛtti.
Vyom——Vyomavatī.
YBhā——Yogabhāṣya.
YMD——Yatipatimatadīpikā.
YS——Yogasūtra.
YV——Yajurveda.

Time in Sãnkhya-Yoga

Sanat Kumar Sen

TIME OBVIOUSLY seems to be a pervasive and fundamental feature of all experience. It appears to be so common to everything that ordinary people hardly bother themselves about its nature. Its reality is so instinctively taken for granted that to question it might be regarded as very silly and preposterous, if not as nonsensical. But with philosophers the case is different. Their motto is not to take anything uncritically as granted, and they have asked questions not only about the nature of time but also about its reality. Here we shall deal mainly with the views of the Sãnkhya and the Yoga systems of Indian philosophy so far as the problem of time is concerned.

Problems

In ordinary experience, every event seems to have a duration—it occupies some time—and it seems impossible to conceive of anything existing or happening except in time. To be, it may be said, is to be in time. It is difficult to see what meaning can be given to such wide terms as 'existence,' 'being,' or 'occurrence' if not in terms of time. Time, however, being involved in everything real, does not seem to be derivable from anything more ultimate, and hence is indefinable. It may be felt or experienced, but it cannot be defined.

Reflection on ordinary experience and on the inconceivability of the presence of anything without the presence of time suggests a conception of time that may be called the Commonsense conception of it. According to this view, time is a vast, infinite dimension that harbours everything. It is in it alone that whatever exists or happens can exist or happen. It pervades everything. Not that every-

thing is constituted by time, but that everything is located in it. There is thus but one infinite time. Seconds, minutes, hours, days, etc. are conceived as parts of this one infinite time. But they do not really divide it. These parts of time are limited durations, the limitations being made possible by means of the specified durations of various events. This also makes the measurement of time possible. Time is measured in terms of units which are shorter bits of itself, determined generally by some regularly recurrent phenomena such as the oscillations of the pendulum, the cycle of day and night, etc.

The conception of time as an absolute infinite substance, however, has certain difficulties. For one thing, such a time is never given in perception, but is only theoretically conceived on the basis of experience. Secondly, it seems inaccurate and misleading to say that there *is* an infinite time, for time is not stationary but dynamic, and the parts of time cannot be together. Relative to any given time (which is called 'present') all time preceding it is regarded as 'past,' and that succeeding it is termed 'future.' Strictly, only the 'present' *is*; the past is no more and the future is not yet. Further, even if it is admitted that only the 'present' is real, there is the difficulty as to how much time is to be taken as constituting the 'presents.' A variable subjective or 'specious' present will not do, for here the point at issue is the objective reality of the 'present,' and not how much time may be regarded as present for this or that individual. It is hard to understand how anything quantitative can have indivisible parts. And if that quantity, as in the case of time, be of a ceaselessly passing or flowing or moving nature, the fixation of its ultimate atoms would seem all the more impossible.

This difficulty as to the ultimate simple units also gives rise to problems concerning the measurement of time. For once parts are conceived in time, there is no knowing where the process of partition would stop. The so-called minimal parts of time, therefore, are only arbitrary and not really the ultimate simple units. Moreover, such units of time, again, like the whole of time, can only be conceptual and not perceived. But then how can time be measured by a standard that is itself imperceptible? Nor is correct measurement possible by perceptible units of time, for perceptible units are not fixed, and a unit of measure that itself varies is, strictly speaking, no unit at all and cannot serve the purpose of accurate measurement.

However, we are not directly concerned here with the problem of temporal measurement but rather with the nature and ontological status of time. Time is not only conceived as the infinite substratum of the entire universe. It may be regarded as the common and gen-

eral cause of everything that is impermanent. Change presupposes time, and all creation or production implies change. Hence the coming into being or going out of being of anything is inconceivable without time. Time, therefore, quite justifiably seems to be an indispensable underlying cause of everything producible.

But just as the conception of time as an infinite continuum has met with difficulties, so also is its conception as a universal cause. It may, for example, be pointed out that the word 'cause' is used here in a very peculiar sense. For 'cause' ordinarily means that which undergoes transformation or that which actively brings about some transformation. For instance, wood or the carpenter, and not time, is said to be the cause of a piece of wooden furniture. Nothing is just a transformation (*pariṇāma*) of time or the result of the energy or active intervention of time. Time does not exert itself to bring about any change, nor are things or events shaped out of mere time. If there had been simply time—and nothing besides (matter or mind)—there would perhaps have been no causation at all. Hence time, solely by itself, cannot be a cause because it is vacuous. But then, neither can anything else be a cause without it. Whatever else there might be, if there were no time, there could certainly be no causation. And it is doubtful whether total absence of time is conceivable at all. Yet, even if for this reason alone time is counted as a permanent or everlasting cause of all change, this is not because it actively brings about change (for it does not), but because change or causation is intelligible only in relation to it.[1]

How is time known? Is it directly perceived? Or is it known in some indirect way, say, by inference? Those who hold that it is directly perceived perhaps rely mainly on the immediate awareness of it in experience. True, we are not always mindful of time and sometimes are even bored by it through over-mindfulness. Assessment of a particular length of time based merely on subjective impression is more likely to mislead than not. Yet it also seems true that we do become aware of time in immediate experience. *Prima facie* just as our perceptual knowledge of the external world or of our inner states seems indubitable, so also is our knowledge of time. But this certainty is only initial and characterizes only ordinary unreflective perception. The fact of perceptual illusion rudely shakes it, even though here (i.e. in the case of perceptual error and its correction)

[1] It is *sambandhamātropakārī* (effective by mere relation), not *vikriyāhetu* (not a material or efficient cause). — *Yuktidīpikā*, p. 89 (Cal. Sans. Series edition, 1938).

one perceptual cognition is cancelled not primarily by a knowledge of a different kind but evidently by another perceptual cognition. This has perhaps led some philosophers to doubt the validity of perception as such, and some others to analyse the conditions of valid perception. Now, even if it is granted that the conditions of valid perceptual knowledge can be determined, there can hardly be any direct means of knowing whether these conditions have been satisfied in a particular case. The occurrence of dreams and illusions seems to prove that a perception does not validate itself, i.e. it does not by itself guarantee that the conditions of its validity are fulfilled. A perception is taken as being proved valid through corroboration by other perceptions or inferences, though in many cases we just take our perceptions to be true and do not seek further justifications. Moreover, reflection on the nature of perception has also led to the view that perception involves *interpretation*, and that the real as it is in itself is not grasped in perception. The interpretation is in terms of two kinds of elements. Certain modes of interpretation are universal, e.g. the Kantian *categories*. Besides these, there is interpretation in terms of one's past experience. As some psychologists say, a pure (i.e. uninterpreted) sensation does not exist.

Further, merely asserting that time is directly perceived would sound dogmatic and irrational unless one can further elaborate the process or the mechanism of the perception. Is time perceived just as an external object or a colour or sound is perceived? Surely, mere time does not excite or arouse any of the recognised external sense-organs ('receptors'). If it could do that, then there would be incessant stimulation of the senses, for time is never absent. But this is not so. Time, as such, is not the stimulus for the external senses. Hence, the theory of direct external perception of time is hardly intelligible or justifiable.

Is then time a fact of inner perception? Does introspection ever reveal time as such? Here also an unwavering affirmative answer is not obtained. For what is revealed or grasped in introspection is primarily not time but the mental states or processes. Never is mere time the object of introspection. It is extremely doubtful if we have or can ever have, an immediate experience of bare time. Nor can it be said with conviction that we have direct experience of time, not all by itself but always along with something else as object. Analysis of the perceptual object hardly reveals time as an element in it. In fact, analysis can only make explicit what was implicit, but it cannot exhibit anything absolutely new. It therefore necessarily depends on what is analyzed and should never lose touch with that.

If it be uncertain whether the original experience grasps time, no amount of mere analysis or reflection can give us certitude about it. In any case, it seems now evident that the view that time is known directly by perception, inner or outer, is a little too naive.

This conclusion would also cast doubt on the theory that time is known through inference (*anumāna*). Inference is invariably based on perception and what is inferred is, in most cases, also capable of being known by perception. However, since it is not certain that time is directly perceived (as is apparent from the preceding discussion), let us now examine the view that time is knowable solely by means of inference (i.e. mediately or indirectly). From what fact is time inferred? The obvious first answer would perhaps be "from the fact of change." For it seems quite unintelligible that there could be change unless there were time. Change presupposes time and appears to be impossible without it. This is a common-sense belief.

Time and Change for Sāṅkhya

Yet commonsense beliefs are not absolute truths and philosophy, which purports to be an enquiry into the fundamentals of reality and experience, is not irrevocably committed to common-sense opinions. Philosophical thinking seeks to be as much free from various presuppositions as possible, and it often leads to results quite contrary to common-sense. Some philosophers have regarded both change and time to be unreal and have held that Reality is eternal and immutable. Some have admitted the reality of change but have denied reality to time. They could not do so if they thought that change necessarily involved time, for then their view would be self-contradictory. Is the concept of 'timeless change' self-contradictory? It would be so only if the notion of time were included in the concept of change. One can of course conceive change as having time as one if its elements. But how this or that person arbitrarily conceives 'change' is irrelevant for our purpose. We are interested to know whether the concept of change (which signifies a very common and well-known phenomenon) invariably or necessarily contains the idea of time. Change as such ordinarily means any kind of alteration or transformation, which may be said to be one of the commonest facts of experience. It may well be thought that the mere idea of alteration or transformation need not necessarily include the concept of time. Time may be thought to be necessary for the understanding or ex-

planation of change, but that would be going beyond change to the intellectual comprehension of its possibility. If it is granted that change is a fact of perception (while it is not certain whether time is perceived or not) and that the concept of change is nothing more than a representation in thought of this fact of experience, then it would follow that time cannot be elicited by analysis from the mere concept of change.

But even if all this is conceded, it may still be argued that even though the concept of time is not a part of the concept of change, yet, since change is unintelligible without postulation of time, real time is known by inference from the fact of change. Since there could be no change if there were no time, and there is change, therefore there must be time. But here it may be asked: if change may be perceived while time is not perceived, why should it be granted that change is unintelligible without time? Why may there not be change, though not in time? Rather, we should not hesitate to admit a fact of immediate experience, even though the dubious intellectual tool for its comprehension is found to be unjustified and has to be repudiated.

Is Time Real?

Such a view is endorsed by the Sānkhya philosophers, who admit the reality of change but are not prepared to grant time the status of independent reality. They reject the theory of absolute time. According to them, there is no such thing as an infinite all-pervasive time.[3] The idea of such a beginningless and endless time is a fiction (*vikalpa*). It is only a construction of the imagination (*buddhinirmāṇa*). Time is a word which has nothing corresponding to it in reality.

Yet, even if time be nothing real, there is no denying the fact that at the unreflective level it is implicitly and universally taken to be real. The very structure of language bears this out. A language which would not provide for the 'tenses,' instead of being regarded as more faithful to reality, would invariably be thought to be very inadequate for purposes of description and communication. If time be unreal, there would be no past, present, and future, no earlier or later, and not even simultaneity. Yet the fact that there is provision in language to express all these time-distinctions proves that these distinctions are rooted in our basic modes of thinking. Mere words or

[3] *na hi naḥ kālo nāma kaścit padārtho'sti—Yuktidīpikā*, pp. 88, 158.

linguistic habits do not generate time-differentiations. Rather, they presuppose and are explained by such differentiations. Words and linguistic structures denoting temporal differences are called for to represent and give expression to distinctions which are implicit fundamentally in the very fact of our being conscious of anything. Therefore, even a theory which denies any independent reality to time has to explain why and how temporal discriminations at all arise in our thought.

As regards the origin of our notion of time and its divisions, some Sānkhya philosophers give an account which seems fairly reasonable. They say that the ideas of time and temporal characteristics arise from the awareness of finitude or limitedness of actions or events. Whatever has a beginning and an end may be said to be finite or limited in a sense. We find that various events, such as a flash of lightning or rumbling of thunder, are limited in this sense. Time is the means of conceiving such limited existence or persistence of events.[3] We also find that though events are like one another in having finite existence, they differ in respect of length of existence. That is to say, some events have greater distance or difference between their beginnings and ends than others. This difference is also explained in terms of time. As we say, one event lasts for a longer or shorter period than another, i.e. events vary in their durations. Then again, from our awareness that some events are no more and some others are yet to come (memory and expectation or anticipation) in comparison with those which are being experienced, there arise the notions of past, present, and future. In analogous ways the origin of the concepts of earlier and later, of a time-order and of an infinite absolute and all-encompassing time can be explained.

To say all this, however, is not to admit the independent reality of time, but only to explain the origin of our temporal concepts. For our knowledge of anything we must ultimately refer to our experience. In our experience, we only find events or actions but never time as such. Therefore, we may well say that pure or empty time as such is nothing or is non-existent. It is nothing apart from actions or events that are revealed in experience. If it is anything it is one with them.[4]

Thus, in Sānkhya, time is not a distinct substance or category. It is a derived entity and a fictitious one at that. Linguistic usage indicates temporality as a basic element in our thought, even though

[3] *kriyaṇām viśiṣta-avadhi-svarūpa-pratyaya-nimittatvam*—*Yuktidīpikā*, pp. 88-89.

[4] *kriyāsu kālasaṁjñā* (*op. cit.*, p. 158).

time as such is a non-entity. The concept of time as one and indivisible is an unreal thought-construct, without any foundation in experience. Such a time would be static and motionless (because otherwise it cannot be called one and indivisible), and therefore cannot account for our use of different temporal predicates such as past, present, etc. Even Vaiśeṣikas, who have such a conception of time, admit this, and explain the temporal divisions by reference to certain 'accidents' or 'adventitious conditions' (*upādhi*). Just as the same person may be called a player, speaker, or singer with respect to different activities, so also time, which is one and infinite, may be divided into past, present, etc. in terms of different actions or events. But to such a theory there is the following objection: If the so-called accidents be indispensable for the distinctions of past, present, etc. they alone may be regarded as being sufficient for explaining all temporal predicates, and we may dispense with the postulation of an additional entity called time. What is the use of assuming an unnecessary superfluous entity?[5] Thus we come back to the Sānkhya view, according to which time as a separate entity distinct from actions (*kriyā*) is rejected, the use of all temporal expressions being accounted for by events or actions.

Diverse Interpretations within Sānkhya

This, however, is only a broad and generalized statement of what may be called the main Sānkhya view of time. It is not the only view attributed to Sānkhya. Moreover, so far as the details of a view are concerned, there is lack of unanimity among commentators. This diversity of interpretations may, for example, be exhibited with reference to the Sānkhya aphorism "Space and Time (arise) from Ākāśa etc."[6]. Aniruddha explains this Sūtra as follows: "It is Ākāśa itself which, by different *Upādhis* or external conditions, is denoted by the terms Space and Time. They are, therefore, included in Ākāśa." But the explanation is very short and itself needs explanation. It does not say what the Upādhis are, nor does it explain in what way exactly Space and Time are contained in Ākāśa. There is no reason given

[5] *Vide* Vācaspati's *Tattvakaumudī* on Kārikā 33 (of Sānkhyakārikā).

[6] Sānkhyasūtra, II, 12: *dikkālou ākāśādibhyaḥ*. Ākāśa (or Ether) is one of the five gross elements (*Mahābhūta*) recognized in Sānkhya, the other four being Air, Fire (*Tejas*), Water and Earth. It is a substance which has sound as its specific quality.

why Ākāśa (and not anything else) should be regarded as being referred to by the words 'space' and 'time' or as being the sufficient ground or reason of all spatio-temporal notions. Aniruddha attaches no significance to the word *'ādi'* (etc.) in the Sūtra which, he says, is there by accident (*sampāta*).

Vijñānabhikṣu interprets the Sūtra somewhat differently. He distinguishes between eternal and omnipresent (all-pervading) Space and Time from limited spaces and times. The former, he says, are of the nature of Ākāśa and are nothing but particular *Guṇas* or modifications of Prakṛti. The latter are said to be effects of Ākāśa. In fact, they also are Ākāśa itself, though as particularized by this or that *upādhi*. But there is hardly anything in the Sūtra to sustain this distinction between eternal space-time and limited ones, as spoken of by Vijñānabhikṣu. In fact, since the Sānkhya admits the possibility of regression or involution (*pratisañcara*) of all the evolutes (the entire universe) into their ultimate ground Prakṛti,[7] nothing save Prakṛti and Puruṣa[8] can be called 'eternal' (in the accepted sense of being without beginning and end). Thus, if even Ākāśa is not eternal, how can time, which is no distinct entity at all, be so? But perhaps the 'categories' of reality (*tattva*) of Sānkhya are eternal, not in the ordinary sense of being everlasting in time but in the sense of being beyond time. For time is not an ultimate or independent thing. It is at best a derived entity. There is no difference among interpreters on this point at least. Time is said to be included in or originate from one of the last or lower categories (Ākāśa). Therefore almost all the *tattvas* are beyond time. In a non-temporal sense, they all may be said to be metaphysically before or prior to time. We may even say that just as the eternity of the *tattvas* is non-temporal, so also is their non-eternity. That is, non-eternity there does not mean 'limited existence in time.' For time simply does not apply to the categories, neither to their progression nor to their regression. They are eternal because they are beyond time. All except two of them (Puruṣa and Prakṛti) are also non-eternal because they are not ultimate, since they finally return and are reduced to their ultimate ground, Prakṛti. But their dissolution, like their evolution, is not in time. Their non-eternity, therefore, is not temporal. Time is posterior to them in its origin but prior to them in its dissolution. Hence,

[7] Prakṛti is regarded as the ultimate material cause of the universe. It consists of the three elements of Manifestation, Activity, and Potency (*Sattva*, *Rajas* and *Tamas*).

[8] Puruṣa is the pure immutable unobjective Consciousness.

neither their eternity nor their non-eternity should be understood in terms of time.

But if there are non-temporal senses of both eternity and non-eternity, can these not be applied to time itself? Time may not be an independent entity. But neither is it nothing. For if it were just nothing, it could not be said to be included in Ākāśa. If it is, or is included in, Ākāśa itself, it must have reality similar to Ākāśa. But Ākāśa, as we have just seen, is eternal. Therefore, time also is eternal. In the same way, it can be also argued that time is non-eternal like the *tattvas* in the non-temporal sense. Surely the origin or dissolution of time cannot be in time, for time cannot be there before its origination or after its dissolution.

But again, according to Sānkhya, there cannot be any origination of the absolutely non-existent nor total non-existence (destruction) of the existent. Hence, origination only means becoming manifest or explicit and destruction only return to the implicit or non-manifest-state. All manifestation proceeds ultimately from Prakṛti, the non-manifest ultimate ground of everything that is produced. Therefore time, even if it be contained in and as such one with Ākāśa, must be ultimately contained in Prakṛti. Prakṛti itself is nothing but the three constituents of Sattva, Rajas, and Tamas in a state of quiescence or equilibrium, and all the evolutes are but transformations of these three, resulting from their various unequal combinations. In any case, Time, if it be not absolutely unreal, must also be in the ultimate analysis a peculiar product of these three *guṇas* (elements or constituents). Perhaps this is the reason why Vijñānabhikṣu, besides identifying time with Ākāśa after the Sūtra, also speaks of it as a particular *guṇa* or modification of Prakṛti (*prakṛterguṇaviśeṣaḥ*).

Summary of Sānkhya

We may now try to sum up the Sānkhya view of Time. For the Sānkhya philosophers, time is not a distinct entity in addition to the twenty-five fundamental categories. But they are not in agreement as to its precise nature and status. According to one doctrine (which may be said to be the more ancient), there is no such thing as time. There is no need to admit any such thing at all. There is only the need to explain the use of temporal adjectives such as past, present, earlier, later, etc., and this explanation is possible in terms of actions or events. Hence, time as a separate entity does not exist. If it is anything, it is the actions themselves. The other view which

we have discussed seems to give time some reality. When it is said that time is Ākāśa itself or is a modification of Prakṛti, at least this much seems to be granted that it is not nothing. The advocates of this view nowhere explicitly say that time is just a word signifying nothing positive. But then there is no explanation given why time should be regarded as being nondistinct from Ākāśa and how Ākāśa or Prakṛti gives rise to our notions of time. This view, therefore, though less radical, is the more difficult to understand.

Yoga Conception of Time

We now pass on to the Yoga conception of time. The Yoga and the Sānkhya are not two wholly different philosophies, but are rather two aspects of the same philosophy. Yoga is mainly concerned with the practical aspect and Sānkhya with the theoretical. The Sānkhya metaphysics in general is assumed and accepted in Yoga. Yet, there are differences also on a number of points. So far as Time is concerned, in authentic Yoga literature, we have more precise, explicit and elaborate statements of views than in Sānkhya. The main Yoga conclusions about time are stated concentratedly in the commentary of Yogasūtra III-52 by Patañjali. The Sūtra reads: "By *saṁyama* (concentration) over the Moment and its Succession, comes discriminative knowledge."[9] We reproduce the commentary in translation:

> As an atom is the minutest particle of matter, so also a Moment (*kṣaṇa*) is the minutest time. Or, a Moment is that much of time which a moving atom takes to reach a position different from its previous one. The uninterrupted flow thereof is Succession (*krama*). There is no real togetherness of a moment and its succession. *Muhūrta* (48 minutes), day, night, etc. are conceptual (imaginary) aggregates. Such time is unsubstantial, a mental construct and a mere verbal idea. To ordinary persons it seems to be an objective reality. The moment, however, pertains to what is real (*vastupatita*) and is determined by succession, and succession consists in the sequence of moments. The Yogis who know time call this by the name Time. Further, two moments do not co-exist. Nor can there be any succession of two co-existing moments, for that is impossible. The sequence of a posterior moment from the one that precedes is Succession. Therefore, only one moment is present. The antecedent and later moments do not exist, and hence, there is no combination of them. The so-

[9] *kṣaṇa-tat-kramayoḥ saṁyamāt vivekajaṁ jñānam.*

called past and future moments should be explained as connected with change. For this reason, the whole universe undergoes change in that one moment; all the characteristics (*dharma*) are installed on that single moment. . . .

From the above account it is clear that Yoga rejects the conception of time as an infinite dimension or even as such finite durations as minute, hour, day, month, year, etc. Such popular ideas of time do not stand for anything objective. They are mere words supposed to denote something real but in fact do not signify any positive entity. The reason why these ordinary or common-sense concepts of time are repudiated seems to be this: They all represent time as a static thing of whatever magnitude it may be. But time is anything but static. It does not stay; it flows or passes. Hence its true conception should be sought not in the sphere of the infinite but rather in that of the infinitesimal. Therefore, in place of the idea of time as an all-pervading, eternal entity or as any existent shorter, measurable quantity, Yoga seems to endorse its conception as Moment. A moment is said to be the minutest division of time or the time taken by a moving atom to reach a new position. As definitions both these statements are defective, for here the explanation is in terms of a fictitious entity. Time as a dimension or magnitude is held to be unreal, and yet a moment is described as the minimal part of such a non-entity. Is it meaningful to speak of parts or divisions of a non-entity? Can unreal things have parts? If a moment were an infinitesimal part of something unreal, it would itself be equally unreal. In fact, a moment, being very subtle and ultimate, is indefinable. It is said to be beyond ordinary acquaintance and accessible only to yogic intuition.[10]

Though the moment is spoken of as the atomic or microcosmic part of a gross time or duration, it really is more basic and primary than the latter which, in fact, is an imaginary construction. Gross time (such as a day or month or year) is conceived as an aggregate of smaller units. But in reality there is no such aggregation, for there cannot be any combination of moments, as they do not co-exist; and this is why gross time is a false concept. Moments exist, not together but one after another. This order of their being is called succession. Not only is there no togetherness of moments—there is no synthesis of them with succession either, for a moment and its succession do not co-exist. It hardly makes any sense to speak of the succession

[10] *kṣaṇabhedastu yogibuddhigamya eva* — Yogasūtra, III-53, commentary.

of a single moment. Succession does not belong to any one moment. It is rather the relation (of priority and posteriority) or order of moments. But the relation here is no part of the relata. Moments do not possess succession as their constituent. Succession therefore is rather conceptual than real. Each moment is real time, which is neither a combination of moments nor their combination with succession. For combination is possible only of co-existing entities, and co-existence here, from the very nature of the case, is impossible (*Vide, Tattvavaiśāradī* of Vācaspati Miśra on Yogasūtra III-52).

Yoga seems *prima facie* to advocate an absolute atomistic theory of time. The time-atom is called 'moment.' Moments are discrete. They have this peculiarity that they do not exist together, but come one after another. Only one moment can exist at a time. That moment which exists is called present. The present is the only existing moment. Past and future moments do not exist. The future is that which is yet to be and the past is that which has already been. They are to be regarded as related to changes or occurrences, i.e. as moments in which some change has occurred or will occur. An object undergoes incessant changes, and these changes, characterized by their time of occurrence, remain fused with the underlying substance. Further, changes are either manifest or unmanifest. Manifest change or activity happens only in the present moment, which alone is said to exist. Unmanifest change, i.e. change which has not yet begun or has terminated, belongs to the object in a subtle or latent form. Past and future moments are to be understood as characterizing or being characterized by such unmanifest change.[11]

Time, which is nothing but moment, is thus connected with change or transformation. But does this mean that it is identical with change? This would reduce the Yoga view to the Sānkhya doctrine that time is no distinct entity but change itself. But this reduction would be a matter of interpretation, for it is not evident. In Yoga, time is nowhere explicitly identified with change. It is not time but succession that is held to be determined or apprehended by change or activity,[12] so that in respect of Puruṣa, which is inactive and immutable,

[11] *Vide,* Yogasūtra IV, 12: *atīta-anāgataṁ svarūpataḥ asti adhvabhedāt dharmāṇam* (The past and the future [entities] exist in their own ways, there being difference of the modes of being of the characteristics.), and Vyāsa's commentary: *bhaviṣyad-vyaktikam anāgatam, anubhūta-vyaktikam atītaṁ, svavyāropārūdhaṁ vartamānam. . . ekasya ca adhvanaḥ samaye dvau adhvānan dharmi-samanvāgatau bhavata eva.*

[12] *Vide,* Yogasūtra IV, 33: ". . . *pariṇāma-aparānta-nirgrāhyaḥ kramaḥ*" (Succession is ascertained by the cessation of change).

existence cannot be determined as a successive one. But since we fail to conceive what non-successive or immutable existence is like, we take 'existing' to be an activity (though really it is not) and conceive Puruṣa as continuing successively without end in the activity of 'existing.'[13]

Ordinarily, however, time is not held to be the same as change, but rather as something which makes change intelligible. It underlies change. Yoga, too, says that the whole universe undergoes modifications every moment and that all characteristics brought about by change are installed upon the present moment.[14] No doubt it also says that omniscience results from concentration (*saṁyama*) on moments and their succession. But this does not mean realizing the nullity of moments. It rather means knowing everything (past, present and future) at one moment non-successively, so that what is negated in omniscience is not time (i.e. moment) but succession.[15]

But if in the height of yogic intuition there can be instantaneous omniscience concentrated in one moment, it seems more reasonable to suppose that time consists just of one moment and not more. It is true that for ordinary knowledge events do not happen nor are known simultaneously. If it be granted that moments alone are real time and that the present moment alone exists, even then to ordinary understanding there seems to be an infinite series of present moments emerging successively out of the future and vanishing continuously into the past. But this may well be due not to the plurality of the moments but to the finitude and imperfection of our knowing capacity. Our knowledge cannot grasp everything at once. But where by yogic means the imperfections are removed, knowledge may well become boundless and reveal all objects at one and the same moment.[16]

Is then there only one moment, or are the moments many? This question perhaps cannot be answered in a simple way, just by admitting one of the alternatives and rejecting the other. For the number of moments seems to be relative to the grade of knowledge. For the Yogi who has reached omniscience and for whom all changes are concentrated into the infinitesimal present, there would be just one moment and not more. And in the ultimate stage even this moment

[13] *Vide*, Vyāsa's commentary on Yogasūtra IV, 33.

[14] *ekena kṣaṇena kṛtsno lokaḥ pariṇāmam anubhavati, tatkṣaṇopārūdhāḥ khalu amī dharmāḥ*—Commentary on Yogasūtra III, 52.

[15] *Vide*, Yogasūtra III, 54: *tārakaṁ sarva-viṣayaṁ sarvathāviṣayam akramaṁ ca iti vivekajaṁ jñānam*, and commentary thereon.

[16] *Vide*, H. Āraṇya: *Pātañjal Yogadarśan* (in Bengali), explanatory notes on Yogasūtras III, 52 and IV, 12.

would perhaps cease to exist as all changes would come to an end with Prakṛti returning to its unmanifest, unproductive state. But for others who are more or less immersed in ignorance and have very imperfect understanding, events would seem to take place and be known in a serial time. Thus moments would be one or many according to the grade of perfection of the knowledge of the individual.

Sānkhya and Yoga Compared

There seems to be an apparent difference between Sānkhya and Yoga on the question of the nature and reality of time. That time is not an independent real, both admit. But whereas Sānkhya (or at least one school of it) dismisses time altogether as nothing apart from activity and change, Yoga seems to recognize time, though not as an infinite dimension but as 'moment.' It is said to be '*vastupatita*.' The meaning of this word is stated by one interpreter (Vācaspati) simply as 'real' (*vāstava*), and by another (Vijñānabhikṣu) as 'included in the category of reality' (*vastukoṭau praviṣṭaḥ*) or as 'objective' (*vastubhūta*). The latter further explicitly says, "According to this (Yoga) doctrine the conclusion is this that time is nothing but moment. The prattle of some that time is not admitted here at all is rooted in the misunderstanding of the text."[17]

Vijñānabhikṣu argues at length for the reality of time as moment from the Yoga point of view against Nyāya, Sānkhya and other schools.[18] He takes Sānkhya as maintaining that time is Ākāśa (ether) itself or a derivative thereof. But the view he seems to espouse and advocate as the Yoga view is not much at variance with the other Sānkhya doctrine that time is not a distinct entity but is identical with activity or change. Against Nyāya, Vijñānabhikṣu says that there is no proof for the existence of an eternal and infinite time (*mahākāla*). Our ordinary temporal expressions such as 'now,' 'then,' 'to-day,' etc. all signify limited durations. These concepts cannot be derived from Ākāśa or Mahākāla by means of any 'fixed' or 'static' adjuncts

[17] *Vide*, *Yogavārtika* on Yogasūtra III, 52. Of course, it is possible to interpret '*vastupatita*' or '*vāstava*' as '*concerned with* the object or thing.' Then one may explain this by saying that time or moment is but a (conceived) substratum of things or even of absence (which itself is a non-entity), but not a thing itself. (See H. Āraṇya; *Bhāsvatī* (*ṭīkā*) on Yogasūtra III, 52). But such an interpretation seems to be strained and unconvincing.

[18] *Vide*, *Yogavārtika* in Sūtra III, 52 and the concluding portion of *Yogasārasaṁgraha*.

or limitations, for time is not a static thing at all. It is no doubt said by Nyāya and Sānkhya that actions such as the movement of an atom to its next position can serve as limiting adjuncts. But then what is the nature of such an action? Is it a qualitied substance or an adjective or a mediating relation? If any of these, then it is useless for our notions of time, for then it is 'static.' But if it is none of these but something else, then it is only a different name for what Yoga calls 'moment.' All other temporal concepts can be accounted for by conceived collocation of moments, and hence the postulation of an infinite ubiquitous time is entirely superfluous. Moment alone, then, is real time. It is not a static entity but is very unstable. It is an extremely transient effect of Prakṛti, a specific transformation of the elements of Sattva, etc. It is therefore not a distinct category, but is included in Prakṛti.

This interpretation by Vijñānabhiskṣu of the Yoga doctrine of time is not much at variance with the Sānkhya views expounded earlier. Sānkya says, Time is derived from Ākāśa, etc. This may mean either that it is Ākāśa itself or that it is Ākāśa limited by certain adjuncts (*upādhis*). In either case (finite or infinite) it can be said to be included in Ākāśa. Vijñānabhikṣu describes it (in his *Sānkhyapravacanabhāṣya*) as *ākāśaprakṛtibhūta*. This may be translated as 'being of the essence or nature of Ākāśa' or as 'existing in Prakṛti as Ākāśa.' Perhaps the latter meaning is intended, for in the very next phrase time is said to be 'a particular *guṇa* or modification or Prakṛti (*prakṛterguṇaviśeṣa*).' This view is quite compatible with Vijñānabhikṣu's exposition of the Yoga doctrine of time, the only difference being that in Yoga he does not bring in the concept of Ākāśa at all. As we have already said, the explanation of time in terms of Ākāśa does not make things any clearer. Whether Ākāśa be taken as the gross element of that name or as something more ultimate (*kāraṇa-ākāśa*) the derivation of time from it is hardly intelligible. In the former case, further, the *tattvas* that are more ultimate than Ākāśa would have to be regarded as non-temporal, even though there be an order of priority among them also.

The other Sānkhya theory that denies time any distinct being apart from actions also does not differ much from Vijñānabhikṣu's interpretation of the Yoga view. For he admits that time is not a 'static' entity. It is unstable. Whether one should call the unsteady ever-changing modifications of Prakṛti 'moments' or 'actions' would be a dispute about words only. For the meanings or referents of the words would be the same.

The two ultimate principles, Puruṣa and Prakṛti, however, are timeless. Time itself, in Sânkhya and Yoga, is at best a modification. Therefore, where there is no modification there can be no time. Puruṣa, the ultimate principle of pure Intelligence, being immutable, exists timelessly. Further, Puruṣa is distinct from everything objective and is independent of all objects. But time, if anything, is to be classified as an object of knowledge. Puruṣa in its true nature, therefore, is wholly beyond time. So also is the primal or unmanifest Prakṛti. Being the ultimate material cause of all evolutes, it cannot be subsumed under any of its evolutes. Therefore, though it may be regarded as the substratum or *āśraya* of time, time cannot be held to be its *āśraya*. All modifications arise from it and may be reduced back into it, but it does not arise from nor can be reduced to anything else. In its essence, like Puruṣa, it is changeless and indestructible and, hence, is timelessly eternal. (*Vide*, Yogasūtra, IV, 33 commentary.)

'Timeless existence,' however, is rather beyond ordinary comprehension. First, though it is held to be positive, its verbal formulation is often negative, for we speak of it as 'time*less*.' Secondly, 'timeless' can be understood only if we know what time is. But we have seen that there is unanimity neither about the concept of time nor about its reality. Pure time is never by itself an object of knowledge, for there is always at least a mental state along with it. If, however, time be just another name for what is designated by 'action,' then 'timelessness' means 'actionlessness.' But how to conceive total actionlessness? For conceiving itself is some sort of activity. So pure or absolute inactivity (absence of all activity whatsoever) is inconceivable. The nature of the existence of Puruṣa and Prakṛti, therefore, is beyond ordinary conception.

Further, it may be supposed that to exist is to be active (in whatever degree it may be). For we find that change is universal and change implies activity. Nothing in the world is exempt from change. Even where change is not ordinarily perceived, we are constrained to postulate minute changes and imperceptible activity, for otherwise perceptible gross changes cannot be explained. As it has been said, a new piece of cloth does not become old all of a sudden. Its oldness results from or comes at the end of innumerable successive changes of a very subtle and imperceptible nature. (*Vide*, Yogasūtra IV, 33 commentary.) So also about everything else. If, then, complete inactivity and complete timelessness be beyond intelligibility, how are we to conceive the existence of Puruṣa and primal Prakṛti? This we do by saying that they 'exist' continuously (i.e.

persist in the activity of 'existing') without beginning or end. That is, here also we use a verb, implying time and activity, for otherwise we cannot speak or think. But we should remember at the same time that 'existing' is not an activity, and hence is not in time. That which is wholly inactive would be wholly timeless, though this may be beyond our ordinary thought and speech.

In Sānkhya-Yoga 'existence' or 'reality,' strictly speaking, does not consist in being in time or being active, though ordinarily it is conceived to be so. If 'existence' were being in time or being active, it would be senseless or illegitimate to ask whether time or activity existed. But for Sānkhya-Yoga it is not. For temporal being and activity do not belong to Puruṣa and Prakṛti, and yet they are held to be the ultimate reals or existents. What then is 'existence'? It is perhaps indefinable. From the Sānkhya-Yoga point of view it may be described as 'a positive nature' (*bhāva*), active or inactive. If it be asked further: "What is meant by 'positive nature,'?" the answer would perhaps be, "anything that partakes of Consciousness or 'manifestation-activity-potency' (*sattva-rajas-tamas*)," i.e. anything that either is or is derived from Puruṣa or Prakṛti. If one still presses the question and demands an explanation of consciousness, etc., no reply need be given, for explanation by means of words has a limit. Consciousness, etc. are known not by description but only through acquaintance.

Conclusion

We have tried to give above mainly an expository account of the Sānkhya-Yoga views of time. The most dominant view seems to be that which identifies time with 'action' (*kriyā*) and regards it as a modification of the principles or elements of '*Sattva-Rajas-Tamas*' and thus as included in Prakṛti. But if the origin of time is thus sought directly from undifferentiated Prakṛti, it seems that it ought to have been regarded as one of the derivative or subordinate categories. For time, if not unreal, belongs to the sphere of the evolutes; and as activity is at the very root of all evolution, time (being manifest activity itself) should have been placed at the head of the progression of *tattvas*, i.e. as the very first evolute. Yet, on the contrary, we find it absolutely missing from the list of categories.

Let us now consider the rationale of denying time any independent status and of identifying it with 'action.' One reason why time is not admitted as an 'entity' by itself seems to be this that it is never

known by itself and it is almost impossible to say what its exact nature is. It is no doubt supposed that everything must be in time. We simply cannot conceive what non-temporal existence or activity would be like. But in spite of such widespread conviction in the reality of time, if we are asked to describe what it is apart from all contents, we would be at a loss. For that way it appears to defy description. Of course, we may say that "time flows" or that "it accommodates everything," but these do not explain what it is that 'flows' or 'accommodates.' It just seems to be a vacuous or empty substratum. But is this a sufficient reason for concluding that time is nothing apart from what is said to take place in it? That would be going against the deliverance of experience. For though we may not often be unmindful of the passage of time, we cannot say that it could be absent. Absence of time is inconceivable, as it is unintelligible that events happen but not in time. We cannot grasp time all by itself because that is impossible, for at least our cognition or awareness must be there. But from this it does not follow that time is nothing as distinct from its contents. That would be like the argument of the subjectivist who argues that since objects are never known except through consciousness, they are nothing apart from consciousness.

Another argument for the voidness and unreality of time may be as follows. Time is broadly divided into past, present, and future or into earlier and later, and events are supposed to be distributed over different parts or periods of time. It may be said that if it could be shown that this supposition had no basis in reality but was due only to our limited power of knowledge, then thereby the fictitious character of time would be established. Now, it has been said that through yogic accomplishments omniscience is possible, i.e. it is possible to know all objects of all time non-successively in a single moment. If this is admitted, it may be contended, then the untenability of the past-future distinctions, and hence, the fictitiousness of the concept of time would be evident. Moreover, even if we do not refer to the evidence of omniscience, it may almost universally be granted that the past is no more and the future is not yet, i.e. they do not exist. And if they are thus disposed of, it may not be difficult to get rid of the present also. For how long does the present last? Can there be an indivisible quantity, of time or of anything else? We cannot say yes, for then we have to revise the concept of quantity. But if we answer in the negative, then even the present has to go. Thus, devoid of past, present, and future, there would be no time.

But the conclusion claimed does not follow from the reasons given. True, we cannot point to quantity and claim that it is absolutely

indivisible. But then it is also true that a positive quantity cannot just vanish into nothing as a result of our search for the absolutely minimal unit. The Yoga itself appears to fix such a limit in the case of temporal quantity in terms of the minutest motion of the atom. Further, even the so-called omniscience does not prove the unreality of time. We do not know what omniscience exactly is. It may be fore-knowledge and back-knowledge. But then it does not mean bringing past time forward and future time backward, but only visualizing what has happened in the past or will happen in the future. Besides, since omniscience is knowledge after all, it also has to be in time, however short that time may be. We do not understand how omniscience can be beyond time. If time is held to be unreal on the ground that past and future do not exist (in the present), the same may be said of everything else too. Moreover, it is not correct to say that time does not at all enter into our experience. For the words 'now,' 'then,' 'earlier,' 'later,' 'before,' 'after,' etc. clearly refer to time, and we use these words to denote the position or order of our experiences or of objects. If time were nothing, these words would be meaningless, and this would render our expressions containing these words incorrect or meaningless. Though time is not grasped through the external sense-organs (for it is not a sensible quality like colour, taste, smell, etc.), it is nevertheless never felt to be absent and we can often become aware of it, though not by itself but always with some other quality.

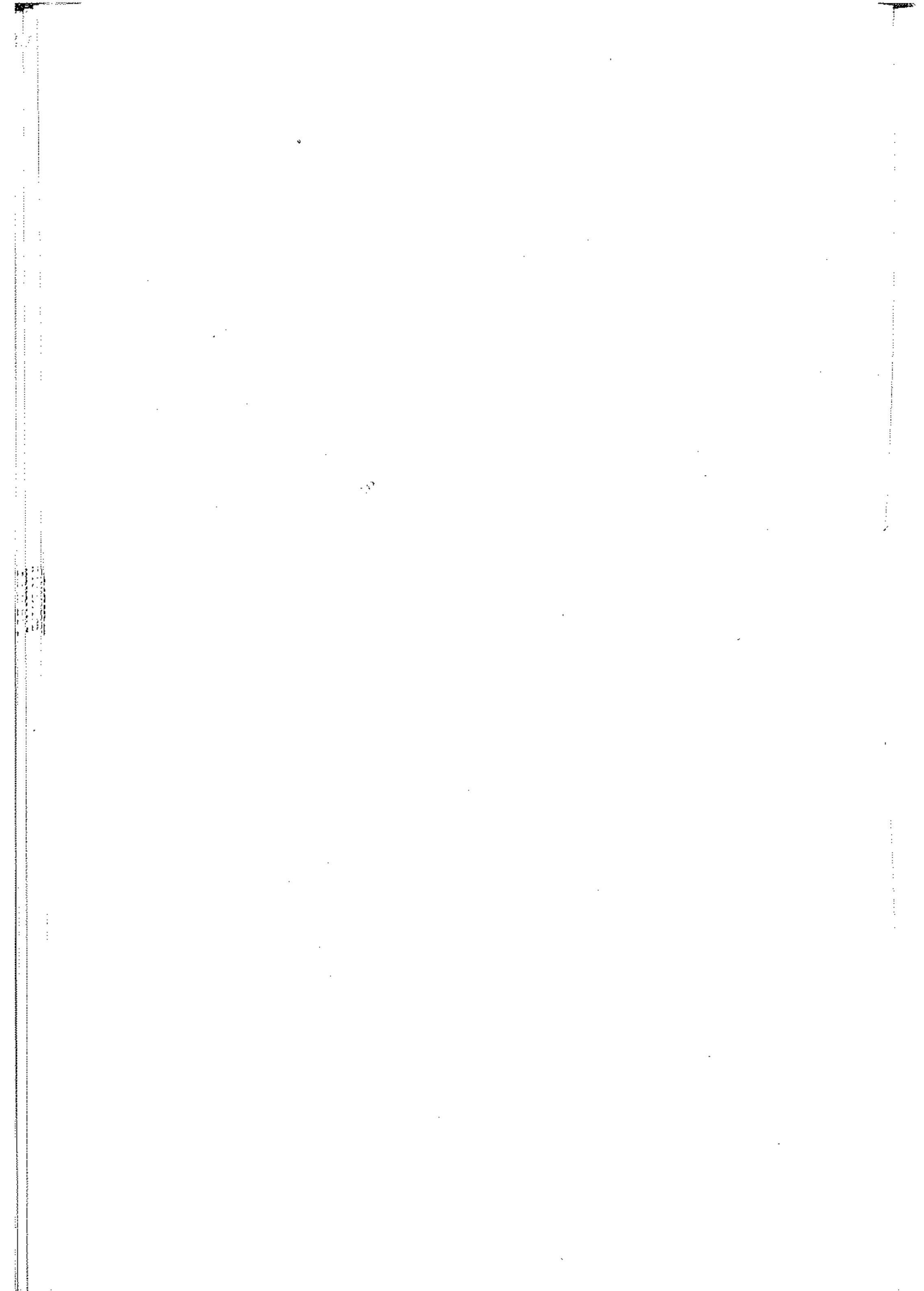
Even if the uniqueness and reality of time be accepted, it may still be asked whether time is one and infinite or not. To this it may be answered that time essentially is atomic. An infinite time is not a matter of experience. It is a conceptual construct. The time-atoms are designated as '*kṣaṇa*' in Yoga. They are said to be accessible to yogic experience. In the original *Yogasūtra* and its commentary, time or *kśaṇa* is nowhere explicitly identified with activity or with anything else. Past and future moments, no doubt, are said to be non-existent. But perhaps this means simply that they are not present, and this is obviously true. Further, the entire universe is said to undergo changes in that single present moment. Thus, understood in a straightforward way, Yoga seems to advocate an absolute atomistic view of time

But this theory does not tally with Sānkhya metaphysics, where there is no mention of time in the list of ultimates (*tattvas*). Therefore, the later commentators have tried to assimilate time to activity or ultimately to Prakṛti. This they did, we believe, because of absolute commitment to a fixed metaphysical scheme. For we do not

see how time can be explained away or reduced to something else. If we concede that time is a product of Prakṛti, then Puruṣa in its essential nature would have to be regarded as having no connection with time. But it is one thing to say that the existence of Puruṣa (or of anything else) is non-temporal, and an entirely different thing to conceive or understand it clearly.

If the conclusion as to the nothingness of time be based on some extraordinary yogic knowledge, then such knowledge itself must be time. But it is not possible for those who do not possess such cognitive excellence to form a consistent idea of it. Those who are credulously disposed may take on trust such knowledge as well as the conclusions supposed to be based on it as true and valid. But others who are of a critical disposition may not put absolute faith in the queer claims made on the basis of alleged supernormal experiences, forsaking their beliefs founded on normal experience and rational reflection.

We do not have the extraordinary means of knowledge spoken of in Yoga and are not committed to an inflexible metaphysical schema. For us, non-temporal existence of knowledge or of anything does not make any intelligible sense. Further, it seems not only that time cannot be reduced to actions but also that, on the contrary, actions themselves presuppose time, and that the temporal order of actions or events cannot be satisfactorily explained solely in terms of their number or any other relation, without completely disregarding a basic fact of experience. We therefore think that the recognition of time as an irreducible category besides Puruṣa and Prakṛti would make Sāṅkhya metaphysics more adequate and intelligible.



Concept of Kāla and Ākāśa in the Sāṁkhya-Yoga System

Indukala Jhaveri

KĀLA—TIME

The *Sāṁkhya-kārikā* of Īśvarakṛṣṇa is the earliest available work of the Sāṁkhya system (3rd cent. A.D.). It does not say anything on the concept of *kāla*. Among its commentaries only the *Sāṁkhya-tattva-kaumudī* incidentally touches it in the following passage :

'According to the Vaiśeṣikas, time is one (indivisible) and hence it cannot admit of such divisions as 'past,' 'present' and 'future'. They attribute these divisions to certain 'accidents' (adventitious conditions) : but according to the Sāṁkhyācāryas, these same 'accidents' themselves may be regarded as the basis of the notions of 'future', 'present' and 'past', and there is no need for the postulating of an interventing entity as 'time'. This is the reason why time is not accepted as a distinct entity'. (*Sāṁkhyatattva-kaumudī* on the *Sāṁkhya-kārikā* 33).

The *Vyāsa-bhāṣya* on the *Yoga-sūtras* of Patañjali, the commentaries of Vācaspati Miśra (*Tattva-Vaiśāradī*) and Vijñāna bhikṣu (*Yoga-vārttika*) on the *bhāṣya* deal with the concept of *kāla* at some length. Thus the Vyāsa-bhāṣya (III. 51) says:

'As an atom is a substance in which minuteness reaches its limit, so a moment is a division of time in which minuteness reaches its limit. Or a moment is that much of time which an atom takes in leaving the position in space it occupies and reaching the next point. The succession of moment is the non-cessation of the flow thereof. The moments and their collection do not fall

into a collection of actual things. The *muhūrta*, the day and night are all aggregates of mental conceptions. This time which is not a substantive reality in itself, but is only a mental concept, and which comes into the mind as a piece of verbal knowledge only, appears to people whose minds are given to out-going activities (व्युत्थितदर्शनानां), as if it were an objective reality. The moment falls under the head of reality and is maintained by succession. This succession consists in the sequence of moments. The Yogīs who know time call this by the name of time.

Further, two moments cannot co-exist. There can be no succession of two co-existent moments. It is impossible. The uninterrupted sequence of the first moment and of the one which follows, is what is called succession. For this there is but one moment existing in the present ; the antecedent and postcedent moments do not exist ; therefore, there cannot be any collection of them.

Further, the moments that have passed and those that have yet to come, should be described as existing in consequence of universal change in evolution. For this reason the whole world undergoes change every moment and all these characteristics are relatively established in that one moment of time.[1]

Vijñānabhikṣu in his *Yoga-vārttika* points out that though Time is defined as *buddhi-nirmāṇa*, yet it may be taken as real. For, it only means that time has no real (objective) existence apart from the "moment". The latter is a real being identical with the unit of change of the *guṇas* in phenomena.[2] But, as Dr. Seal points out, 'even this is real only for our empirical (relative) consciousness (व्युत्थितदर्शन), which intuits the relation antecedence and sequence into the evolving Reals (*guṇās*), in the stage of 'empirical intuition' (सविचारा निर्विकल्पप्रज्ञा) . The 'intellectual intuition' (निर्विचारा निर्विकल्पप्रज्ञा), on the other hand, apprehends the Reals as

1 *Sacred Books of the Hindus*, Vol. IV, p. 259-260.

2 *Yoga-Vārttika* on III. 51.

they are, without the imported empirical relations of Space, Time, and Causality.[3]

From the above it is clear that the Sāṁkhya-Yoga accepts *kāla*, not as a distinct eternal entity, like the Vaiśeṣikas, but only as the one present moment which is identical with the unit of change of the *guṇas*.

ĀKĀŚA

In the Sāṁkhya-Yaga works earlier than Bhikṣu's, we are given to understand *ākāśa* as a gross evolute produced from the *śabda-tanmātrā* (sound-potential). This means that the evolution of the categories upto *ākāśa* takes place without the latter. Bhikṣu seems to have experienced this difficulty and hence his clever innovation in the following passages:

1. 'Eternal space (*dik*) and time (*kāla*) are of the form of *Prakṛti* or the root cause of the (produced) *Ākāśa*,[4] and are only the specific qualities of *Prakṛti*. Hence the universality of Space and Time is established. But these, space and time, which are limited, are produced from *ākāśa* through the conjunction of this or that limiting object.' (*Sāṁkhya-pravacana-bhāṣya* on the *Sāṁkhya-sūtra* II. 12).

2. 'If ākāśa is all pervading, how can it be an effect (of something)? How can there be the statement of '*ākāśa*-atom that is made hereafter in the*bhāṣya*? To this it is replied: '*ākāśa* is of two kinds, one original and the other, derivative like the earth-element of the Vaiśeṣikas. The original or *kāraṇākāśa* is "the undifferentiated formless *Tamas* (mass in *Prakṛti*; matter-rudiment, *Bhūtādi*), which is devoid of all potentials and is merely the all-pervasive seat[5] or vehicle of the ubiquitous original Energy

3 *Positive Sciences of the Ancient Hindus*, p. 21.

4 आकाशप्रकृतिभूतौ can be, thus, explained in two ways.

5 Positive Sciences of the Ancient Hindus, p.27.

(*Rajas*)." This *kāraṇākāśa*, on the association of the other *guṇas* first modifies itself partially as the sound-potential, and then the gross *ākāśa* is produced by a conglomeration of the *ākāśa*-atoms like the gross earth (of the Vaiśeṣika). This gross *ākāśa* is limited from the point of view of ahaṁkāra (the preceding evolute) and serves as the medium for air (वायोरावरणम्) (*Vārttika* on the *Yoga-Sūtra* III. 40).

Thus, we see that, Bhikṣu having before him the full-fledged discussions of space and time of the Nyāya-Vaiśeṣika, has felt the difficulty of thinking anything without postulating *ākāśa* and *kāla*. With the help of the Vaiśeṣika ideas, he imagines two types of *ākāśa* and *kāla*, primary or original and derivative or empirical. He looks upon the primary or *kāraṇākāśa* as being identical with *tamoguṇa* in *prakṛti* and regards, the eternal *dik* and *kāla* as the specific qualities of *prakṛti*. Empirical *dik-kāla*, he explains, through the association of *ākāśa* with limiting adjuncts.

It is clear that this has no textual justification for it. We may, however, say that this *prakṛti*, in as much as it brings forth the empirical time and space, has the potentiality of that time and space. And if we consent to call this potentiality of time and space as *kāla* and *kāraṇākāśa* respectively, we may have reason to agree with Bhikṣu.[6]

6 It may be noted that Ṣimānanda in his *Sāṁkhyatattvavivecana* points out that the Vaiśeṣika view which regards *kāla* as an independent eternal entity and, the Sāṁkhya view which regards the notion of the *mahā-kāla* (i.e. the eternal time) and the moment as being due to the conjunction of the *ākāśa* with the limiting adjuncts—are not endorsed by the Yoga. According to the latter, the moment alone is the real *kāla* and that *pradhāna* (i.e. its *pariṇāma*) is the cause of the *kāla-vyavahāra* and not the *ākāśa*. Thus Ṣimānanda makes a distinction between the Sāṁkhya view and the Yoga-view. He, however, does not say anything regarding the concept of ākāśa, in Sāṁkhya-Yoga (i.e. as to whether it is to be identified with the *tamas* in *prakṛti* or regarded as produced from the *śabdatanmātrā* only).

The Theory of Time in Jaina Philosophy

Harisatya Bhattacharya

Kāla or time is ordinarily described as the principle of change; accordingly the systems of philosophy which deny the real existence of the world cannot be expected to admit the reality of time. The Vedānta, for instance, maintains that *kāla* is no reality. "If you maintain", says Ānandajñāna, "that time is the distinctive cause of our idea (of succession etc.) your position is not tenable, because consciousness which is all-pervasive can establish such relationships; so that from the order or sequence of effects, i.e., phenomena, you are not justified in inferring the real existence of time. (*Tarkasaṃgraha*)." This Vedāntic disquisition about *kāla* seems to have foreshadowed the celebrated theory of Kant that time is only an intuition of the mind and has no reality outside it. The philosophers of the Sāṁkhya school also do not admit the reality of *kāla* ; to them, the *Puruṣa* and the *Prakṛti* form the dual realities and *kāla* is the conjunction (*saṁgati*) of the two. In plain language, the theory means that the *puruṣa* or soul views all things and phenomena in time, i.e., temporal order, when it falsely finds itself joined with the *Prakṛti*. Clearly, this Sāṁkhya theory denies the absolute and independent reality of time. It is said to consist in the *saṁgati* or *saṁyoga* of the *Puruṣa* and the *Pradhāna,* – which conjuction is obviously no real permanent substance. In the *Sāṁkhya-sūtra,* the absolute reality of time is categorically denied and it is stated that our ideas of "Direction (Dik) and Time (Kāla) are derived from (that of) Space (Ākāśa)" The Buddhists of the Śūnyavāda school are nihilists, — admitting the reality of no substance whatsoever. To them also, *kāla* is no real substance. The Vedānta, the Sāṁkhya and the Buddhist schools of philosophy contend that "Time consists in our subjective

conventions as 'It was', 'It will be' and is no real substence," — as Ānandajñāna says.

In the Jaina philosophy, *kāla* is as much a real substance as the five others, *viz., jīva, dharma, adharma, pudgala* and *ākāśa*. It is deseribed as the accompanying cause or condition (*sahakārī kāraṇa*) or *asamavāyī-kāraṇa,* as the Vaiśeṣikas call it, of the modification of substances. Substances are modified because of their own nature. Yet time is a real factor in the happening of their modifications. You cannot say that as the modifications of substances are due to their own nature, one need not admit the real existence of time, as their accompanying cause. Substances move, came to rest and have spatial existence, of and by themselves; yet the Jaina-scripture posits the reality of *dharma, adharma* and *ākāśa*, as the accompanying conditions of the motion, the rest and the spatial existence of substances. Similarly, time should be admitted as the accompanying condition of the modifications of substances. Indeed, the necessity of admitting the real existence is stronger in the case of time. We came across moments, hours, days, etc., in our actual observation; these, as will be shown hereafter, are but effects or limitations which point to the reality of a principle which we call *kāla*. It is thus that observation confirms our belief in the realily of time. Lastly, it should be noted that along with out observation of a modification in a substance, there is involved this observation that this modification occurs at such and such a time. How can this latter fact of observation be explained unless you admit the reality of time as the accompanying condition of the modification of a substance? The modification in a substance which is admittedly due to the nature of the substance itself can generate no more than an idea of modification; and if in our idea of modification, there is involved an idea of a temporal order, this necessitates the real existence of time as its cause, or for the matter of that, as the accompanying condition of the modification in a substance.

The opponents of the above Jaina theory of time contend that time is no reality. They point out that in the Jaina Āgama *'samaya'* (a duration or measure of time) is described as the time taken

by an atom in crossing over a *pradeśa* of *ākāśa* and that the same Āgama elsewhere talks of the crossing of the whole universe in the course of one *samaya*. What does this show? This shows that time is no reality; it is more or less a convention. The Jaina commentator, Brahmadeva, sets aside this contention by pointing out that the above different statements in the Āgama refer to the differences in speed and do not affect the reality of time. "Devadatta by moving slowly", says he, "traverses a distance of 100 *yojanas* in one hundred days; he may, however, acquire super-human powers and swiftly pass over the same distance in one day. Time is real notwithstanding the different results effected by differences in speed."

The next objection is that there need not be supposed any real time to explain motion and change in things. *Dharma*, which is admitted by the Jainas as a real substance, is what accounts for motion; why should *kāla* be admitted over and above *dharma*? The Jainas answer that the accompanying conditions of a phenomenon are often many in number. An animal, for instance, moves of itself; yet *karma* is postulated to determine its motion. And not duly that, but in the case of fishes, for example, water is admitted as an accompanying condition of motian besides *karma*. This shows that there may be more than one accompanying condition. Hence there is no inconsistency if *kāla* be supposed to be a reality and accompanying condition of motian and change.

Then again there may be objectors who may admit the reality of time but find difficulty in looking upon it as a condition of the modification of substances. They point out that according to the Jainas themselves, time is confined withing the limits of *lokākāśa* or 'the filled space' only; the *aloka* which is beyond this has no time whithin it. But the *aloka* is a substance all the same and must have modifications. How are these modifications possible in the *aloka* which has no time within it? The Jaina thinkers answer this objection by stating that the *aloka*, although it is beyond the *loka* is still a part of the *ākāśa* or space; *time* being within the *ākāśa*, it brings about modifications in any part of it, just as a potter's stick moves the whole wheel by striking at a

particular point of it and just as a pleasant object coming in contact with a particular part causes pleasant feeling all over the body.

In Jaina philosophy, a real thing is said to be characterised by its three aspects, respectively called *utpāda* or origination, *vyaya* or annihilation and *dhrauvya* or persistence. In other words, whatever is real is considered to come into manifestation to enter into annihilation, so for as a particular manifestation or modification is concerned and to persist, so for as its essential substance is concerned. The same fact about a real thing is otherwise stated by the Jaina philosophers by recognising in it two aspects, the *paryāya* or the mode and the *dravya* or the substance. The former is the series of temporary modes which come (*utpāda*) and go (*vyaya*) and the latter is the essentiality which is constant (*dhrauvya*). Time, as a real substance, has three aspects of the *utpāda*. The *vyaya* and the *dhrauvya*, and its two aspects of the Paryāya and the Dravya may also be distinguished.

Let us suppose the phenomena of a man's clenching his fingers into a fist. Now when the clenching of the fingers occurs (*utpāda*), the previous state of the fingers necessarily is at an end (*vināśa* or *vyaya*), yet so far as the fingers are concerned, they continue to be substantially the same (*dhrauvya*). Or again, when pure knowledge arises (*utpāda*) as an effect, its cause, undisturbed contemplation, is at an end (*vyaya*); and yet, the same soul in its pure substance underlies both the phenomena (*dhrauvya*). In the same way, a certain material phenomenon indicates the time which we call, say, the present; when this present time arises (*utpāda*), the time which preceded it is at an end (*vyaya*); and we shall see presently, how the noumenal time underlies both these phenomena of time (*dhrauvya*). Thus it is that the three aspects of time — its origination, its annihilation and its persistence — may be easily distinguished and that accordingly time is a substance.

Time in its impermanent aspects, *viz.*, the aspects of origination and decay — *utpāda* and *vyaya* — is called the *paryāya kāla* (time in modification) or *vyavahāra kāla* (time in ordinary practice). It

is technically called the *samaya*. What we call moments, hours, days, etc. are instances of *samaya* or empirical time, as these have both beginning and end. The author of the *Tattvārthasāra* describes the *vyavāhāra kāla* in the following way: "The great sages say that the practical time is indicated by modification, activity, distance and proximity. Modification is described by the Jainas as the self-variation in a thing without a change in its substance. Activity is due to the movement etc. of a body. Distance consists in being for away and proximity, in being near; these two, *viz.*, distance and proximity are to be understood here in relation to time, because time is the subject of study here." In other words, we call a thing new or old (in time) by looking at its state or modification; on seeing the rise of the sun in the east, we say we have the day-break (morning -time) and so our ideas of mid-day, evening, night etc. are determined by our observation of the movements of heavenly bodies. A thing under actual observation is said to be proximate in time, otherwise it is distant in time. In this way, the outside objects and phenomena indicate and refer to the *vyavahāra kāla* or *samaya*, i.e. temporary time denoted by moments, days, hours etc., as we call them.

To say that *samaya* is indicated by the outside phenomena is, however, very difficult from saying that *kāla* or time is nothing real but is only the effect of those outside material phenomena. There is a class of thinkers who maintain that the time which we call *nimeṣa* is but an effect produced by the movements of our eye-lids. Similarly, an hour, according to them, is but the effect of things like the water-clock, etc. and a day, of the movement of the Sun. Aristotle, for example, by closely connecting motion and time, was almost an upholder of this theory. This view is obviously incorrect. The effect of material things would bear the stamp of materiality. Food, for instance, which is the effect of rice (boiled) has colour (black, white, etc.), smell (good, pleasant, etc.), touch (soft, hand, etc.) and taste (sweet, etc.). If time were nothing but an effect of material things or phenomena, it would have had colour and other attributes of matter. Hence it is that time must be supposed to be a reality, distinct from matter.

Paryāya or modifications refer to *dravya* or the substance which persists in those modifications. Hours, minutes, days etc. are periods which have a beginning and an end. These point to the Time which continues to persist. This is time in its *dhrauvya* aspect, *dravya-kāla* or *niścaya-kāla*, as it is technically called. Some thinkers contend that there is no (noumenal) *kāla* besides the *samaya,* inasmuch as there is no evidence of a Real *Kāla*. It may be pointed out in reply to this objection that *samaya*, as shown above, has a beginning and an end. It is accordingly a *paryāya*, an evanescent state which is impossible without a *dravya* or persisting substance behind it, as its material cause and support. Food, for instance, is a *paryāya*, an effect; although fire, fuel etc. are operating conditions towards its production, it points to rice as the *dravya* or substantial cause. A potter, his wheel etc. are no doubt necessary for the production of an earthen pitcter, an effect or *paryāya*; yet it refers to clay, as its *dravya* or material cause. Lastly, one is a human being, sometimes; he remains in hell or heaven, sometimes; these states suppose some substance, i.e., the soul, which persists in these states. It is thus that any phenomenon which is a *paryāya* always refers to a *dravya* which underlies it and out of which it arises and into which it disappears. *samaya* thus proves *kāla,* the noumenal time.

What is this *niścaya* or *dravya kāla*? The Jaina philosophers say that *paramārtha kāla* or noumenal time is characterised by *vartanā*. *Vartanā* consists in an apprehension of continuity of a substance. A material thing, for instance, undergoes changes from moment to moment. Observation shows that besides the consciousness of a material substance underlying those changes, there is another consciousness of a continuity of something real throughout those moments of change. This latter consciousness of continuity is *vartanā* and noumenal time is characterised by it. The Commentator Brāhmadeva thus explains *vartanā* and *dravya kāla* — "Things change of and by themselves and their own essential nature. *Vartanā* is the accompanying cause of the modification of those things—like the basal stone in a potter's wheel, like fire in the matter of studing in winter-time. This *vartanā* is the

characteristic of real time." In other words, real time, although it does not cause the changes in things is nevertheless an invariable accompanying condition of these. The stone underneath the potter's wheel does not cause motion to the wheel; but in the matter of the movement of the wheel, the stone is indispensable. Fire, again, does not cause one's study in winter; but study is impossible without fire. So is the case with time. The position thus ultimately comes to this, that changes in things point to something more than those changes and the changing things. Every change is accompanied by a temporary period or point of time, called *samaya* or empirical time, while the continuing reality underlying the empirical time is the *dravya kāla* or noumenal time.

Time as a substance is obviously similar to the soul but inasmuch as it is essentially unconscious, it is distinct from the soul and similar to the other *ajīvas*. Time is *amūrta* or formless; in this respect, it is similar not only to the soul but to the non-souls except matter. *Kāla* is described as *niṣkriya*, i.e., devoid of activity and is different from soul and matter which are *sakriya* or active ; other *niṣkriya* substances are *dharma*, *adharma* and *ākāśa*.

The most important thing to be noticed in this connection is the classification of substances into extended and non-extended. *Jīva, pudgala, ākāśa, dharma* and *adharma* are called *astikāyas* or extended substances, while *kāla* is non-extended. An extended substance is that which has many *pradeśas*. A *pradeśa* is that portion of space which is obstructed by one ultimate unit or atom of matter. *Ākāśa* or space is infinite and hence its *pradeśas* are 'infinte'. *Dharma* and *adharma* pervade the *lokākāśa* but they do not extend beyond it. Accordingly, the *pradeśas* of *dharma* and *adharma* are said to be 'innumerable' (and not 'infinte') inasmuch as they have a limit. A *jīva* also is capable of filling up measurable or indefinite (though not infinite) parts of space and its *pradeśas* are also 'innumerable'.

As regards matter, it may be said that the parts of space, occupied by one or two molecules can be counted; in such cases, matter may be said to have 'numerable' *pradeśas*, such material molecules fill the *lokākāśa* and do not extend beyond it and hence

matter may also be said to have 'innumerable' *pradeśas*. And thirdly, atoms of matter in their subtle state are infinite and accordingly, matter may be said to have an 'infinite' number of *pradeśas*.

A minute part of a substance is called *aṇu* and when these *aṇus* are combined inseparably, the substance constituted of them is an *astikāya* or extended substance. *Jīva, pudgala, ākāśa, dharma* and *adharma* are extended substances, because their minutest constituents are mixed up and inseparably combined with one another. Such is, however, not the case with time. It has no doubt, its minute parts, the *kālāṇus* or instants; but each of these *kālāṇus* is strictly separate from the other; the munute parts of time are never mixed up with one another. This is the reason why the Jaina writers compare time-substance with a heap of jewels. Time is not an *astikāya* and inasmuch as each of its minute part is strictly individual, it may be said to have only one *pradeśa*, or rather, no *pradeśa* at all.

If the minute points of time are indefinitely many in number, filling, as they do, the whole of the *lokākāśas*, it is clear that the Jaina view is opposed to other Indian theories according to which time is one. The Jaina thinkers maintain that if Time were one, there would have been no distinction between past, present and further phenomena, all phenomena would have been perceived simultaneously in one unvaried 'now'. It is only when we regard the time-units as separate and many in number that we can correctly explain our perception of phenomena which are simultaneous or of long duration or of short duration. The phenomena which occur in one point of time are simultaneous ; the phenomena which occur in many points of time are of long duration and those which engage fewer points of time are of short duration. The objections contend that time is one and that its variety as past, present, future etc. are due to differences in *upādhis* or limitations.

It is said that time is one and that because the phenomena occur in varied orders, time appears to us to be varied as present, past and future. The Jainas point out that the varied order of

the phenomena indicates nothing but variation in time-units. The Jainas hold that time-units are indefinitely many in humber and that they fill every mirutest point in filled space (*lokākāśa*). It is said that as time which is existent in *lokākāśa* can account for changes in the *aloka*, it may be one and yet effect changes in every part of the *lokākāśa*. The Jainas point out that the contention is not at all sound. Time can effect changes in the *aloka* because the *aloka* is a part of the *ākāśa* which is but one whole. In *lokākāśa*, however, *pudgalas* and souls are infinitely many in number, their *pradeśas* occupying its various parts so that time which effects changes in *pudgalas* and souls must consequently be many in number.

The Jaina theory of time may thus be summarised. Time is a real substance, being the accompanying cause of change in other substances. It is either *vyavahāra kāla*, empirical time consisting in minutes, hours and other ordinary measures of time, or *dravya kāla*, which, although it appears as a heap of jewels, consists really of indefinitely many *kālāṇus* or time-units. *Kāla* is a *niṣkriya* substance and has no *pradeśa* or rather only one *pradeśa*

Advaitic Conception of Time

M. Hiriyanna

It is well known that Advaitins differ among themselves in regard to several points relating to their doctrine; and it may appear strange that they should do so, when all of them alike claim to be the followers of one and the same teacher, Śaṁkara, Appayya Dīkṣita explains, in the beginning of his *Siddhānta-leśa-saṁgraha* that these differences of view do not matter, because they relate to the details of the doctrine and not to the central conclusion of it, viz., the identity or, more strictly, the non-duality of the individual self and Brahman. We propose to refer here to the divergence of opinion among Advaitins in respect of one such detail, viz., Time. At least *four* distinct views can be traced about it in extant advaitic works. Only one of them, as we shall see, has the approval of Śaṁkara: yet the others are not rejected, since they do not affect the main point of the doctrine.

(1) The first view is what Śaṁkara himself states in his commentary on the *Vedānta-sūtra*[1]. According to it, Time is an effect (*kārya*) of *avidyā* or Māyā like Space. That is, it is not primary. This view makes Time objective in the sense in which all effects of *avidyā* are, viz., that they are not constructions of the individual's mind. It also means that temporal relations are irrelevant not only to Brahman but also to *avidyā*[2], taken by itself. Again, being an effect, Time must have a beginning as well as an end. It may be said that it is difficult to think of a beginning or an end in regard to Time, for all thought presupposes it. But this difficulty is only to be expected since, as an effect of *avidyā*, it is merely an empirical reality. All empirical objects are riddled with such inconsistencies, and it is just for this reason that they are described as 'appearances'. They are quite familiar to us, but yet we cannot give a coherent account of them.

(2) The second view is that Time is not an effect of *avidyā*, but is the relation between it and spirit or Brahman. It is referred to in the *Vana-mālā*,[3] a commentary on Śaṁkara's *Bhāṣya* on the *Taittirīya Upaniṣad*. Time thus falls outside *avidyā*, unlike the rest of the physical universe including Space. It is not accordingly conceived here as co-ordinate with Space, as it is in the previous view. But though Time does not fall

1. *Etena dik-kāla-manaḥ-paramānvādīnam kāryatvam vyākhyātam* (II. iii. 7). The same is the significance of *Saṁvatsaro vai Prajā-patiḥ* (*Prāśna Up*: i. 9). See also *Dakṣiṇāmūrti Stotra*, st. 2.

2. Cf. the description of *avyākṛta* as *kālāparicchedya* in *the Bhāṣya* on *Māṇḍukya Up*: 1.

3. *Cidavidyā-saṁbandhaḥ kālah* p. 121. (Śrī Vāṇī Vilās Press, Śrīrangam).

within *avidyā*, it is dependent upon it which is one of the relata it relates. That is, it is not given by itself. The significance of this view is that Time is beginningless although it has an end and ceases to be, along with *avidyā*, when right knowledge is acquired. Further, it is false (*mithyā*) because one of the relata, viz., *avidyā* is so, and the relation between reality and appearance must necessarily be an appearance.

(3) The third view identifies Time with *avidyā* and is mentioned by Madhusūdana Sarasvatī in his *Siddhānta-bindu*,[1] which is a commentary on what is known as the *Daśa-ślokī*, a work ascribed to Śaṁkara. Madhusūdana might have meant his statement to be understood literally; but, in view of Sureśvara's description of Time as a *śakti* (i.e., *kriyā-śakti*),[2] we may perhaps take it to mean that Time is an aspect of *avidyā*, and not identical with it. That is, it is the dynamic aspect of *avidyā*. Since *avidyā* and Brahman must be thought of as related so long as we reckon them as two, we should assume that the present view admits that relation *in addition to* Time.

(4) The last view takes Time to be an aspect (*rūpa-bheda*) of Brahman itself. It also is referred to in the *Vana-mālā*[3] already mentioned, but is there traced to the authority of the *Viṣṇu-purāṇa*. Since Brahman, according to Advaita, excludes all diversity, Time is to be explained, in this view, as identical with it, like *sat* and *cit*. Like them, it is not what characterises Brahman but is the very essence of it. That is, by Time here we have to understand eternity. In the three views so far considered, it is in one sense or other connected with the principle of becoming; here it is identical with the principle of Being. In other words, *Kāla* is changing time in all those cases, but it is changeless eternity here in which, as Eckhart says, there is no before or after. It is this 'aspect' of Brahman, we should add, that appears as phenomenal time, when viewed from the empirical standpoint.

The common aim of the first three explanations is to show that time and change are transcended in the ultimate Reality. The last view implies that the Advaita doctrine has no objection to regard it as real and ultimate, provided its conception is transformed into that of eternity.

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1. *Kālastu avidyaiva*: p. 180 (Kambhakonam Edition).

2. Cf. st. 14 of his *Mānasollāsa* on st. 2 of the *Dakṣiṇāmūrti Stotra*. It is there ascribed to Iśvara; but that, according to Advaita, is virtually to ascribe it to *avidyā*.

3. P. 121.

The Advaita View of Time

T.M.P. Mahadevan

Advaita, with which the name of great Śaṅkara is associated, is not a system among systems of philosophy. It stands for the plenary experience, *pūrṇānubhava*, that does not involve the usual distinctions of experient, experiencing and experienced object. The plenary experience is the non-dual Self which is referred to in the Upaniṣads by such terms as *Brahman* and *Ātman*. The world of plurality of which we as empirical souls are a part is an appearance of the non-dual Self. The fact of this appearance is called *Māyā*, the principle of illusion which presents the Many in the place of the One, and introduces the distinctions of experients, experiencings and experienced objects into distinctionless experience.

Māyā is not real, as it gets sublated in pure experience, along with the world of plurality which is its product. Nor is it unreal because it makes the world-appearance possible. Hence, it is described as indeterminable, *anirvacanīya*, being neither real nor unreal. Time, according to this scheme, has meaning only in and for the world of plurality. It represents the relation between the *Self* and *Māyā*. In other words, time is the condition of the possibility of experiencing, and not of experience. Therefore, like *Māyā*, it is not real.

An analysis of the three states of experience—waking, dream and deep sleep—will render the meaning of time, according to Advaita, clear. Both waking and dream are forms of experiencing, and are governed by time. The difference between waking and dream is that while in the state of waking the empirical subjects experience an external world, in dream the experiencing is internal. The objects that constitute the external world are conditioned by both physical time and mental time. They are *dvaya-kālāḥ*, says Gauḍapāda, an illustrious predecessor of Śaṅkara; whereas the contents of dream are made possible by mental time; they are *citta-kālāḥ*. Thus there is this difference between the world of waking and the world of dream, that while the former is public, the latter is private. Since Advaita recognizes this difference, it should not be confused with subjective idealism. The non-dual Self is not a subject as against an object. It

is that which transcends this distinction. The states of waking and dream, however, agree in this that they are, both of them, phenomenal and are, therefore, subject to time.

The state of deep sleep by contrast is a timeless experience. Here, there is neither the external world of things nor the internal world of ideas. There is no experiencing ; there is experience. Although when one wakes up from sleep, time reappears, in sleep itself there is no time. Where there is duality, there is time. Where there is time, there is misery. In sleep-experience, there is no duality, no time, no misery. That sleep-experience is of the nature of happiness is evidenced by the fact that the one who wakes up from sleep recalls and says "I slept happily." Can we, then, regard the sleep-experience itself as the transcendent pure experience ? The answer is : no. In sleep, ignorance or *Māyā* persists. One who has woken up from sleep not only says "I slept happily" but also "I did not know anything." In the language of duality—which is temporal—we may say that in sleep there is temporary suspension of time.

The truly timeless experience is *turīya*, where even ignorance disappears. '*Turīya*' means the 'fourth', and is so named to distinguish it from the three empirical states. But, in truth, it is not 'fourth' in addition to the three. It is the non-dual experience that is the ground and goal of all relative experience. Deep sleep resembles *turīya*, since in both there is no perception of plurality. But they differ in that while in deep sleep there is no realisation of non-duality, in *turīya* there is. Explaining this difference, Gauḍapāda says that :

"The self of the sleep state knows neither itself nor another, neither truth nor untruth : *turīya* is all-seeing always." Interpreting the meaning of the expression *sarvadṛk sadā*, Śaṅkara observes : "Since there is nothing other than *turīya*, it is eternally all, as well as the seer ; there is no ignorance in it. Indeed, when the ever-luminous sun shines, there can be neither darkness nor erroneous appearance."[1]

Turīya, thus, is pure experience where there is neither time nor *Māyā*. The true non-dual Self is eternal ; time is its moving image. The *Maitrāyaṇī-Upaniṣad* declares that

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1. नात्मानं न परं चैव न सत्यं नापि चानृतम् ।
प्राज्ञः किचन संवेत्ति तुर्यं तत्सर्वदृक्सदा ॥

Māṇḍūkya-kārikā, 1. 12.

"There are two forms of *Brahman*: time and the timeless; that which is prior to the sun is the timeless, without parts; but that which begins with the sun is time which has parts.."[1]

Further on, the Upaniṣad quotes an ancient verse:[2]

'Tis Time that cooks created things,
All things, indeed, in the Great Soul (*Mahātman*).
In what, however, Time is cooked—
Who knows that, he the Veda knows'.

Time is said to cook because it makes everything mature and resolve in *Brahman*. But time itself is cooked ultimately and is resolved in *Brahman*. Time is not the true nature of the Ultimate Reality. Time is with parts whereas the timeless is without parts. *Brahman* is the timeless.

Reality, according to Advaita, is truly timeless—timeless not in the sense of endless duration, but in the sense of eternity and completeness, requiring neither a 'before' nor an 'after'. A well-known text of the *Taittirīya-Upaniṣad* defines *Brahman* as being, consciousness and infinitude.[3] The expression 'infinitude' here means 'timeless'. Śaṅkara explains, in his commentary on this text, *Brahman* as timeless in the sense that it is not conditioned by time, is the ground of time, and is unsurpassably subtle.

If time is not real, it may be asked, what is its use, what purpose does it serve? The answer of Advaita is that time is the gateway to Reality. The purpose of the notion of time is the same as what, according to Gauḍapāda, is the object of the teaching about creation. If we imagine time to be real and inquire into its nature, we shall never find a solution. The discussion of time is not an end in itself, but must lead us to the knowledge of the Real. To employ an apt imagery of the *Kaṭha-Upaniṣad*, while the different orders of creation serve as food for *Brahman*, time (here called 'Death') is the sauce (*upasecana*). Just

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1. द्वे वाव ब्रह्मणो रूपे कालश्चाकालश्च ; अथ यः प्रागादित्यात् सोऽकालोऽकलः ;
अथ य आदित्याद्यः स कालः सकलः ।
Maitrāyaṇī Upa. 6. 15.

2. कालः पचति भूतानि सर्वाण्येव महात्मनि ।
यस्मिंस्तु पच्यते कालो यस्तं वेद स वेदवित् ॥
Ibid.

3. सत्यं ज्ञानमनन्तं ब्रह्म ।
Taittirīya Upa. 2. 1.

as a sauce makes consumption of food (even when it is insipid) possible, even so time serves as the channel for all the orders of creation to return to their source which is the eternal *Brahman*. But time is not left behind, for time too is consumed.

Time is useful in the sense that it is in time that we have to strive for and reach the timeless. All *sādhana* is in time. It takes time to gain the timeless. Apart from time being a general condition of spiritual progress and perfection, it can also be employed as an object of meditation. Meditation on time is recommended as a method for getting beyond time to the timeless reality. The *Maitrāyaṇī-Upaniṣad* mentions time as one of the principal forms of the supreme, immortal, unembodied *Brahman*.[1] It is as a form of *Brahman* that time is to be meditated on. The supreme *Brahman* is not in the sphere of what is seen, and is without shape. So, the mind cannot be dissolved in it directly. One of the indirect ways of mind-dissolution is the contemplation of time as the image of *Brahman*. Meditation implies imaginative substitution. It involves necessarily a make-believe. But it is useful in that it leads us through the image to the real. The image may be external or internal, gross or subtle. As one progresses in meditation, one makes the image more and more subtle. Of the most subtle images of *Brahman*, time is preeminent. The fruit of time-meditation is not to cling to time as if it were ultimately real, but to transcend it. As the Upaniṣad declares, "He who worships time as *Brahman*, from him time withdraws afar."[2]

1. ब्रह्मणो वावैता अग्र्यास्तनवः परस्यामृतस्याशरीरस्य ।

Maitrāyaṇī Upa. 4. 6.

2. यः कालं ब्रह्मेत्युपासीत कालस्तस्यातिदूरमपसरति ।

Ibid., 6. 14.

Time and the Timeless

(*Principal Miller Lectures, 1953*)

by

T. M. P. MAHADEVAN, M.A., Ph.D.
Professor of Indian Philosophy
University of Madras

UPANISHAD VIHAR
MADRAS-23

PREFACE

I am grateful to the Vice-Chancellor and the Syndicate of the University of Madras for appointing me Principal Miller Lecturer for the year 1953. As required by the terms of the Lectureship, I delivered two lectures on *Time and the Timeless* in March 1953, at the University Buildings, Madras. The substance of those two lectures is given in the following pages.

The Lectureship was endowed in 1926 by the late Diwan Bahadur Sir R. Venkataratnam Nayudu, Kt., M.A., Vice-Chancellor of the University of Madras, 1925-28, in memory of his teacher, the late Rev. Dr. William Miller, C.I.E., M.A., LL.D., D.D., sometime Principal of the Madras Christian College and Vice-Chancellor of the University of Madras in 1901. The theme that has been set for the Lectureship is the 'Inner Meaning of Human History as disclosing the one Increasing Purpose that runs through the Ages.' It is obviously a difficult theme to be dealt with, year after year, by successive Miller Lecturers. It assumes that human history has an inner meaning, and that that meaning discloses a purpose that increases with the march of time. That the time-process is not an end-in-itself, that it is the medium for the progressive realization of a great purpose, and that this purpose is of ultimate value not only for individuals but for the collective humanity as well, are all implied in the phrasing of the theme which is borrowed from an utterance made by a great poet.

In order to interpret the theme of the Miller Lectureship, it is not necessary to believe in the absolute reality of time. That such a belief is without basis in truth, that it is a snare and a delusion, if the reality of the time-process which is the timeless is not recognized, I have endeavoured to show. An examination of the various

concepts of time, mathematico-physical, psychological and metaphysical, reveals that a belief in the absolute reality of time lands us in hopeless contradictions. So, adopting a well-known expression used in Advaita with reference to *māyā*, I have described time as *anirvacanīya* (indeterminable). Instead of asking, What is time?, it is more profitable to ask, What is its purpose? The purpose of time is to serve as the gateway to Reality. Time is the channel through which all orders of creation return to their source, viz. the timeless Brahman. Through meditation on time, one gets beyond time to the eternal Absolute.

Of the two principal views of the timeless reality, the theistic and the absolutistic, I have preferred the latter. All notions of difference and duality are, in the last resort, unsatisfactory. If God is different from us, then He is, so far forth, limited and finite. The worshipper-worshipped relation has an important place in spiritual discipline. But it too has to be transcended in the distinctionless Absolute. It seems to me that the doctrine of the Absolute is the nearest approach we can make to the total Truth.

The realization of the non-dual, eternal Brahman-Atman is the goal set for man. This is called *moksha* or release. It is not a goal which is *in* time, though we have necessarily to approach it *through* time. *Moksha* is eternity, and not a status to be produced or newly acquired. We are free here and now. Only, we are not aware of it, being conditioned and made finite, as it were, by *māyā*. Once the blinkers restricting our vision are removed, we shall see the effulgent reality which is the non-dual Self. The disciplines that are necessary for enabling us to realize the Self are taught in Vedānta, and also in other spiritual traditions. I have not discussed these in my essay, as they are beyond its scope.

The *moksha* I have been talking about is not release for the individual; it is, more properly, release from

individuality. So, such expressions as 'individual release' and 'collective release' have no meaning. In release, there is neither individuality nor collectivity. If *moksha* is the goal of each, it is the goal of all as well. Speaking from the side of time—and all speaking has to be so—it is the cosmic realization of the eternal perfection that is the purpose of history.

Such, in outline, is the argument of the *Time and the Timeless* here presented in these pages. It has taken time to present it, and space too. But its aim is to show that time and space, however real they may seem to be, are not ultimately real, and that their reality, which is their inner meaning, is the eternal spirit.

I am indebted to the great thinkers, Eastern and Western, ancient and modern, whom I have consulted in preparing for the Miller Lectures. To my students in the University Department of Philosophy, I am thankful for correcting the proofs and for checking up the references. I acknowledge with gratitude the willing co-operation of Mr. S. Viswanathan and his staff at The Central Art Press in printing this work expeditiously and with care. Due to lack of facilities, it has not been possible to supply the transliterated Sanskrit words with all the necessary diacritical marks. But I trust that the words as printed are intelligible enough.

Madras
Sept. 22, 1953

T. M. P. MAHADEVAN



dve vāva brahmaṇo rūpe kālaś cā 'kālaś ca; atha yaḥ prāg ādityāt so 'kālo 'kalaḥ; atha ya ādityād yaḥ sa kālaḥ sakalaḥ.

There are two forms of Brahman: time and the timeless; that which is prior to the sun is the timeless, without parts; but that which begins with the sun is time which has parts.

—*Maitrī Upaniṣad*, vi, 15.

kālaḥ kalayatām aham.
Time am I to those who reckon and measure.

—*Gītā*, x, 30.

aham evā 'kshayaḥ kālaḥ.
I alone am the imperishable time.

—*Gītā*, x, 33.

nityaḥ sarvagataḥ sthāṇur acaloyam sanātanaḥ.

Eternal, all-pervading, firm, unmoving, ancient is this (Self).

—*Gītā*, ii, 24.

TIME AND THE TIMELESS

I

Man is a persistent optimist. Even the so-called pessimist, who quarrels with things as he finds them and hopes for no good in the future, has nevertheless a sense of the reality of goodness and perfection; and if he has turned a pessimist, it is because he is in a hurry, being impatient, and is foiled in his hope of bringing down heaven to the earth, quickly and with the least effort. Man is a dreamer, a builder of castles in the air. He sees visions in his reveries, and wants them to come true. The very fact that he is able to project himself into the future and reflect upon the past, and imagine that the Golden Age is yet to come or is past, shows that he is not merely of the earth, earthy, not an animal living precariously from moment to moment.

When the spirit of youth burns brightly in his breast, man paints the future in glowing colours. And when the weight of age hangs heavily upon him, he becomes sick of soul and looks out for nothing but treacherous traps and dangerous pits in his path, threatening to destroy him and his pet world. There are some who succeed in preserving a youthful spirit in an aging frame. To them

is granted a truer vision of the shape of things to come. Even in things evil they discern a soul of goodness. They see a Grand Plan at work in the world-process,

> 'And one far-off divine event,
> To which the whole creation moves.'[1]

The drama of light and shade with its denouement of triumphant goodness we find vividly unfolded in Tennyson's *Locksley Hall* which has inspired the theme for the Miller Lectures. In a mood of jubilation the poet sings of 'the fairy tales of science, and the long result of Time'; he dips 'into the future far as human eye could see' and sees 'the vision of the world, and all the wonder that would be'; he envisages an era of peace and harmony when the war-drum would throb no longer, and the battle-flags would be furled

> 'In the Parliament of man, the Federation of the world.'

But soon a sense of despair overpowers the sensitive spirit of the poet. In a plaintive voice he cries:

> 'So I triumph'd ere my passion sweeping thro' me left me dry,
> Left me with the palsied heart, and left me with the jaundiced eye;
> Eye to which all order festers, all things here are out of joint,
> Science moves, but slowly slowly, creeping on from point to point:

Tennyson, *In Memoriam*.

> Slowly comes a hungry people, as a lion, creeping nigher,
> Glares at one that nods and winks behind a slowly-dying fire.'

One with a shorter sight than Tennyson's would have succumbed to that mood of despondency, and would have ended the poem with that tragic note. But our poet becomes healthier and keener-visioned for all his palsied heart and jaundiced eye, and affirms as his unshakable faith thus :—

> 'Yet I doubt not thro' the ages one increasing purpose runs,
> And the thoughts of men are widen'd with the process of the suns.'

It is true that the earlier facile optimism has disappeared from the mind of the poet. But he has gained a deeper insight which enables him to distinguish between the knowledge that 'comes' and the wisdom that 'lingers', and between the withering of individuals and the progress of the world.

Another poet, William Cowper, expresses his deep faith in a divine purpose in spite of apparent discord and disorder, in the following lines :—

> 'Judge not the Lord by feeble sense,
> But trust Him for His grace :
> Behind a frowning providence
> He hides a smiling face.
> His purposes will ripen fast,
> Unfolding every hour :
> The bud may have a bitter taste,
> But sweet will be the flower.'

II

The idea of 'a frowning providence hiding a smiling face' is quite well known in Indian thought. There is not here a Satan set against God, no Ahriman opposing Ahura Mazda. Only one ground there is for all that is. It creates and destroys, builds and dismantles. It is the source of the so-called good and the so-called evil. The one God is both Siva the auspicious, and Rudra the terrible. He sits on a Himalayan peak in stolid meditation, unmoved and unmoving, beyond the three times (*paristrikalat*) and without parts (*a-kalah*).[2] And as the Great Time (*Maha-kala*) he revels in his dance of destruction, withdrawing unto himself the myriads of forms that make the world. He has a face that is benign, and a face that is awful. Addressing Rudra, an ancient seer beseeches him to withdraw his terror-striking form and reveal his benignant nature :

> 'The form of thine, O Rudra, which is kindly (*śiva*),
> Unterrifying, revealing no evil—
> With that most benign form to us
> Appear, O dweller among the mountains !
> O dweller among the mountains, the arrow
> Which thou holdest in thy hand to throw
> Make kindly (*śiva*), O mountain-protector !
> Injure not man or beast !'[3]

[2] *Śvetāśvatara*, vi. 5.

[3] Ibid., iii, 5-6; R. E. Hume, *The Thirteen Principal Upanishads (Second Edition, Oxford University Press,* 1934), p. 400.

By nature Rudra is all beneficence. It is on account of our limited vision and separatist outlook that we are afraid of him.

> "With the thought 'He is eternal!'
> A certain one in fear approaches.
> O Rudra, that face of thine which is propitious—
> With that do thou protect me ever!"[4]

Just as poison is no poison in its proper place, viz. the fangs of the serpent, even so evil ceases to be evil from the perspective of the Whole. There is no other way to freedom from evil than to know that God, the supreme Reality, is the Whole (*purna*)[5]; and it is by knowing him as auspicious (*siva*) that one attains peace for ever.[6]

III

There is a criticism of Indian thought that it is pessimistic in outlook, that it emphasizes the gloomy side of things and forecasts a final doom. It is said that the Indian climate is hostile to active life, promotes in the people a longing for rest and lazy existence, and makes them resign themselves to an inflexible fate. The proverbial Hindu world-weariness is responsible, it is urged, for the belief in a transmigration of souls that is founded in, and perpetuated by *karma*. 'Transmigration or Metempsychosis, is the great bugbear—the

[4] Ibid., iv, 21; R. E. Hume, p. 405.
[5] Ibid., iii, 9.
[6] Ibid., iv, 14.

terrible nightmare and daymare of Indian philosophers and metaphysicians,' says an Orientalist, 'All their efforts are directed to the removal of this oppressive scare. The question, therefore, is not: What is Truth? The one problem is: How is a man to break this iron chain of repeated existences?'[7] A great missionary-philanthropist of contemporary Europe and a keen student of Indian thought draws a sharp contrast between the two attitudes which he calls 'world and life affirmation' and 'world and life negation,' and characterizes the Indian outlook as one which is mainly governed by the negative attitude. The world and life, to the Indian, are without meaning and full of sorrow. All that he is asked to do is to 'bring life to a standstill in himself by mortifying his will-to-live and to renounce all activity which aims at improvement of the conditions of life in this world.'[8] The doctrine of a Giant Wheel in perpetual motion, to which one is tied by the relentless law of *karma*, cannot but make for spiritual depression and soul-destruction. From this encircling gloom, a former Miller Lecturer—an honoured teacher of mine—finds a welcome relief in the provision of these annual

[7] Monier Williams, *Brahmanism and Hinduism* (Fourth Edition, John Murray, London, 1891), p. 41.

[8] Albert Schweitzer, *Indian Thought and Its Development* (Hodder and Stoughton Ltd., London, 1936), pp. 1-2.

lectures whose theme is the one increasing purpose in human history. He says, 'To provide for the annual delivery of lectures concerned with an inner purpose of which human history is the steadily increasing fulfilment is to strike a blow against the tendency to regard the long story of humanity as merely part of a boundless *samsara* from which every spiritually-minded man must long to escape.'[9]

The charge of pessimism has as often been replied to as it has been made against Indian thought. It is a superficial view of the philosophies of India that sees in them a governing spirit of pessimism. To trace a people's cultural heritage to the climate of their country, to think that their philosophical ideas and religious practices are conditioned by geography, is a manifestation of the externalist outlook of our day. If the classical mode of inquiry was to explain the outer in terms of the inner—I am using these terms not in the spatial sense—the modern method seems to proceed in the opposite direction. To interpret the spiritual by means of the unspiritual, the immaterial on the basis of the material, is no longer the special privilege of

[9] The Rev. A. G. Hogg, *The Challenge of the Temporal Process*, Principal Miller Lectures, 1933 (Journal of the Madras University, Vol. VI, No. 1, Jan. 1934), p. 3.

materialists and naturalists. It has become the common tool of many biologists, psychologists and historians. If, however, one wants to understand the mind of a people, one cannot succeed by making one's inquiry turn on the pivot of the external conditions of land and weather. To argue that India's hot climate engenders pessimistic philosophy is neither sound logic nor good climatology. There have been confirmed pessimists in the most salubrious climates and resolute optimists in the hottest areas of the world.

There has been a lot of confused thinking about *samsara* and *karma*. *Samsara* is not the Slough of Despond in which the soul is condemned to perish; and *karma* is not an iron rule under which it has to labour and get lost. A series of births provide the soul with repeated opportunities for attaining perfection. The law of *karma* introduces intelligible order in the moral world. The destiny of the soul is not to revolve for ever on the wheel of *samsara* propelled by the rod of *karma*. Its goal is freedom from birth and death, liberation from *karma*.[10] There is no disjunction between the question 'What is Truth?' and the problem 'How is one to attain liberation?' For, the way to liberation lies through the knowledge of Truth.

[10] Cp. Buddha: 'Just this have I taught and do I teach, ill and the ending of ill.'

It is true that most Indian philosophers speak of sorrow (*duhkha*) as being the very nature of the world. But 'sorrow' in this context does not bear the sense of the term we ordinarily use to signify the opposite of pleasure or happiness. The metaphysical significance of the term *duhkha* is 'a state of agitation, of restlessness or of "commotion" rather than "suffering".'[11] To say that the world is sorrow (*duhkhatmaka*) is to say that it is impermanent and unsubstantial. This it is when we are oblivious of its basis which is Brahman, the absolute reality. When the proper perspective is gained, the world is no longer seen to be a vale of sorrow but appears in its true light, viz., as an expression of the Absolute. The world is, as the *Svetasvatara*[12] describes it, *brahma-cakra*, the Wheel of Brahman. When thus its true nature is grasped, it itself becomes the means to *moksha*[13].

A view such as this cannot be described as a negative attitude towards life and the world. The Indian seeker of truth does not hope for the destruction of the world, but for its fulfilment. *Sannyasa* (renunciation) which is the Indian ideal of life is not an escape into

[11] J. Evola, *The Doctrine of Awakening*, Luzac & Co., London, 1951, p. 60.

[12] *Śvetāśvatara*, i, 6.

[13] mokṣāyate samsārah.

nothingness. On the contrary, it is an overcoming of the death of narrowness and isolation, and a return to a more abundant life. The purpose of the world-process is *moksha* (freedom); and *moksha* is not the prerogative of any individual or sect. It is the common goal of all beings. The *sannyasin* is he who has dedicated his life to the realization of the goal of spiritual freedom not only for himself, but for all. Where selfishness is, there *sannyasa* cannot be. *Moksha* is not freedom for the individual; it is freedom from individuality. He whose mission is to make this consummation possible cannot be an egotist casting an eager eye on private salvation. So, one need not go away from Indian thought to discover that human history has a purpose. It is adherence to the particular view of progress that was prevalent in the nineteenth century Europe that is responsible for the criticism that Indian thought is pessimistic, and that it does not believe in progress. Now that the Western mind has outgrown some of the fixed ideas of the last century, and is making a more sincere and sympathetic effort, than it ever did in the past, to understand the Orient, and especially India, it is to be hoped that the contribution of Indian philosophy to world-thought will be assessed at its proper worth.

IV

The nineteenth century saw the rise of Darwinism which made a significant change in the concept of progress. In the century that preceded it, nature and history were sharply differentiated from each other, and the latter alone was regarded as progressive. With Darwin, the concept of progress received universal extension, and the term 'evolution' came to be used to cover both historical progress and natural progress. With the march of time, newer and newer organisms emerge in life's struggle for existence. It is a continuous drama of adaptation of internal relations to external relations that makes life thrive. The interior of an organism cannot remain static, while the external environment changes. It too should change in order to meet the new demands upon it. The organism is not a mere passive receptor of stimuli from without. As a consequence of the impressions it receives, it changes and adapts itself to the changing conditions of the external world. Morphological and physiological differentiation is the result of the differentiation of external forces. It is through external causes that variations occur in the organism. In the course of evolution, those variations that are ill-adapted to the external world die out, and those that are well-adapted are preserved by natural selection. The law which

evolution follows is progressive differentiation and integration. From the protozoa to *homo sapiens*, it is a long story of development from homogeneity to heterogeneity, from incoordination to coordination. The more evolved a being is, the more complex it becomes; and along with an increase in complexity there is an increase in integration.

One of the direct results of the doctrine of evolution was the strengthening of the belief in progress. It came to be held that all time-processes were, as such, progressive in character, and that history was a progress merely because it was a sequence of events in time.[14] The theory of biological evolution fixed also the content and criterion of progress. Progress consists in the increasing measure of life and its enjoyment. "The progress of humanity, from the nineteenth-century point of view," says Collingwood, "meant getting richer and richer and having a better and better time. And the evolutionary philosophy of Spencer seemed to prove that such a process must of necessity go on, and go on indefinitely; while the then economic condition of England appeared to corroborate that doctrine in at least the one most interesting case."[15]

[14] See R. G. Collingwood, *The Idea of History* (Oxford University Press, 1946), p. 99.

[15] *Ibid.*, pp. 144-5.

Thus the 19th century thought, under the dominating influence of Darwin, came to conceive of progress as a natural law. Man, according to this view, is a child of nature, and is subject to natural law. He appears on the scene at a very late stage in evolution, and cannot claim any difference in kind from the animal out of which he has evolved. He may call himself the crown of creation, if it so pleases him. But the apex cannot stand if the supporting layers and the base are removed. It may do some damage to his pride when he is told that the ape is a near ancestor of his. But that is the truth as the biologist sees it.

Discussing the bearing of the theory of evolution on the egalitarian thesis, and criticizing it, Bertrand Russell observes, "If men and animals have a common ancestry, and if men developed by such slow stages that there were creatures which we should not know whether to classify as human or not, the question arises: at what stage in evolution did men, or their semi-human ancestors, begin to be all equal? Would *Pithecanthropus erectus*, if he had been properly educated, have done work as good as Newton's? Would the Piltdown Man have written Shakespeare's poetry if there had been anybody to convict him of poaching? A resolute egalitarian who answers these questions in the affirmative will find

himself forced to regard apes as the equals of human beings. And why stop with apes? I do not see how he is to resist an argument in favour of Votes for Oysters. An adherent of evolution should maintain that not only the doctrine of the equality of all men, but also that of the rights of man, must be condemned as unbiological, since it makes too emphatic a distinction between men and other animals."[16]

So, if man's superiority to the other species of creation should be maintained, it must be on grounds other than that he is the latest link in the biological chain. The ground for his superiority is that he has the power of knowledge and has the ability to act as a responsible agent. Commenting on an Upanishad text, which speaks about the evolution of man from matter (*anna*), Sankara observes as follows: "When every form without any distinction is a modification of matter and lenial descendant of Brahman, why should man alone be singled out here? The reason is that he is the principal. Why is he the principal? Because he has the eligibility for action and knowledge."[17] Man alone is eligible for action and knowledge, because he has the

[16] Bertrand Russell, *History of Western Philosophy* (George Allen & Unwin, 1946), p. 753.

[17] *Taittirīya-Upaniṣad-Bhāṣya*, Mem. Edn. Vol. 6, p. 71: sarveṣām apy annarasa-vikāratve brahma- vaṃśyatve ca aviśiṣṭe, kasmāt puruṣa eva gṛhyate? prādhānyāt. kim punaḥ prādhānyam? karmajñānādhikāraḥ.

necessary ability, has desires and he is not precluded from them. There is also the Scriptural text which declares: "The *Atman* is expanded only in man. He, indeed, is most endowed with intelligence. He gives expression to what is known. He sees what is known. He knows what is to come. He knows the visible and the invisible worlds. He perceives the immortal through the mortal. Thus is he endowed. But with the other animals, eating and drinking alone constitute the sphere of their knowledge."[18]

If the distinction between man and animal that the Upanishads and Sankara make in the passages quoted above be ignored, then man's achievements and aspirations will all lose their meaning. One of the most deplorable consequences of an indiscriminate extension of the law of evolution to realms where it has no relevancy whatsoever is the quantitative view of life with the greatest amount of pleasure as its goal. The new creed of modern man, it has been said, is the religion of the "Bitch-Goddess Success." Nothing succeeds like success. There is no criterion of goodness other than this, viz., survival and successful living. In his craze for success man has surrounded himself with so many gadgets and contraptions that he has become a pitiable slave to them. Preoccupied with the business

[18] *Aitareya Āraṇyaka*, III, ii, 3.

of living, he seldom thinks of the purpose of life. The question which the boy Naciketas put to Yama does not easily occur to him: who shall revel in mere length of life?[19] To quote a Western writer, "Precisely because we are now capable of inundating the planet with more human bodies than we can nourish, with more printed matter than we can assimilate, with more knowledge than we can apply intelligently, our whole culture is in the position of the Sorcerer's Apprentice: we do not know how to decrease or to turn off the power we once fatally invoked, and can now only increase. Until we master that lesson, all life is in danger."[20]

The advancement of science and technology in the present century far exceeds that of all the earlier centuries put together. Some of the marvels that we see today could not have been even imagined by our forebears. And yet the world has been in a pretty bad shape. The two great devastating wars of the 20th century, and especially the bursting of the atom-bomb over Japan on August 6, 1945, have shaken rudely the minds of thinking men, making them turn away from faith in progress. "Technics", says Berdyaev,

[19] *Kaṭha,* I 28, atidīrghe jīvite ko rameta?

[20] Lewis Mumford, *The Conduct of Life* (Harcourt, Brace and Co., New York, 1951), p. 147.

"rationalize human life, but this rationaliza-tion has irrational results." Terrible forces have been unleashed by the knowledge man has gained about the structure of the atom, and by the skill he has acquired to bombard it. The process towards total destruction seems to receive acceleration with every fresh discovery and new invention. No wonder, therefore, that sensitive souls should be shocked at the bleak prospect before the world. These are the titles of some of the books that have been written in the West in recent years: *The Predicament of Modern Man, Modern Man is Obsolete, The Abolition of Man.* The 19th century faith in progress has now yielded place to a fearful belief in the decline and eventual disappearance of man. The habit of the older folk looking back and saying that they have seen only degeneration with the march of time has always been there. But at present, that habit has become more universal and insistent. "We went down to the mine", observed an old miner in England, "with a book of Carlyle's or Mill's in our pocket to read whilst we ate; but the boys today go down with a news-paper and at night they don't wrestle with a book, but go to sleep over the wireless."[21] It is not strange that the aged should weep over 'this sorry scheme of things entire.' What is

[21] Mumford, *op. cit.*, p. 281.

depressing is that even youth, in spite of its outer gaiety, should have succumbed to a spirit of purposeless existence. In one of Priestley's Plays, a girl on her twenty-first birthday imagines herself to be a woman of forty, and quarrels with Time. When her brother, a kindred spirit, asks 'Like being forty?', she replies: "Oh no, Alan, it's hideous and unbearable. Remember what we once were and what we thought we'd be. And now this. And its' all we have, Alan, it's *us*. Every step we've taken—every tick of the clock—making everything worse. If this is all life is, what's the use? Better to die, like Carol, before you find it out, before Time gets to work on you. I've felt it before, Alan, but never as I've done to-night. There's a great devil in the universe, and we call it Time."[22]

It is evident, then, that progress is not to be measured so much by outer change as by inner transformation. So far as the outer world goes, probably it is always the same. There is a saying of the Mimamsakas that there was never a time when the world was otherwise than now.[23] It is our knowledge of the world that varies, as also our technical skills. But along with our knowledge of

[22] J. B. Priestly, *Time and the Conways* (See *The Plays*, Vol. I, p. 176, William Heinemann Ltd., London, 1948.)

[23] na kadācit anīdrśam jagat.

means, we have not gained the wisdom about ends. "The means of our culture, i.e., our technics", says Trueblood, "are developed wonderfully by rational, experimental and precise thought, but the ends have not kept pace."[24] In his panegyric of Man, Alexander Pope sings :

> 'Go, wondrous creature ! mount where science guides ;
> Go, measure earth, weigh air, and state the tides ;
> Instruct the planets in what orbs to run,
> Correct old Time, and regulate the sun.'[25]

Physically man is a poor thing. Of all the young ones, the human child is the most helpless creature. In the words of Pascal, "Man is but a reed, the most feeble thing in nature, but he is a thinking reed. The entire universe need not arm itself to crush him. A vapour, a drop of water suffices to kill him . . . All our dignity, then, consists of thought. By it we must elevate ourselves, and not by space and time which we cannot fill. Let us endeavour then to think well : that is the principle of morality. By space the universe encompasses and swallows me up like an atom; by thought I comprehend the world."[26]

[24] D. Elton Trueblood, *The Predicament of Modern Man* (Harper & Brothers, 1944), p. 13.

[25] *An Essay on Man. The Works of Alexander Pope,* New Edition, John Murray, London, 1871, Vol. II, p. 376.

[26] Blaise Pascal, *The Philosophers.*

V

The change in the Western man's attitude towards man *vis-a-vis* the world is slowly becoming evident, as for instance in Collingwood's idea of history. The old conception of history was that it was a chronicle. The task of the historian, it was thought, was to record faithfully the events as they occurred.[27] The events that mattered for the historian were mainly the reigns of kings, the intrigues of royal courts, and major and minor wars. Since the historian could not have been present when those events occurred, and, even if present, could not have seen them all, he had to depend on evidence. And the way he collected his evidence was by what may be called the scissors-and-paste method. That is, he gathered his authorities, classified and put them into pigeon-holes, as it were, and sought to weave out of them a consistent story.[28]

The conception of history in the past century and a half has, however, changed con-

[27] Hume in his essay on 'The Study of History': To see all the human race, from the beginning of time, pass, as it were, in review before us,...what spectacle can be imagined so magnificent, so various, so interesting?

[28] R. G. Collingwood, *op. cit.*, p. 257: History constituted by excerpting and combining the testimonies of different authorities I call scissors-and-paste history. I repeat that it is not really history at all, because it does not satisfy the necessary conditions of science.

siderably. As developed by Collingwood, there are two features of the idea of history which are pertinent to our present purpose: (1) the emphasis on thought, and (2) the unimportance of time.

(1) "Historical knowledge," says Collingwood, "has for its proper object thought: not things thought about, but the act of thinking itself."[29] Even biography is not history, because its limits are biological events, the birth and death of the human organism. Natural processes cannot constitute the content of history; and the process of life is a natural process. You may record the events in the life of a person, from the cradle to the grave, in a sequential order. But that is a chronicle and not history. The study of history has for its aim self-knowledge and not knowledge of objective events. It is true that the historian may gather statistical data and make generalizations. But statistical generalization is not an end-in-itself for him. It is useful only in so far as it helps in the detection of the thought behind the facts.

'Man, know thyself' is a command addressed not to the philosopher alone but to the historian also; because history is for human self-knowledge. "It is generally thought to be of importance to man that he should know himself: where knowing himself means know-

[29] *Ibid.*, p. 305.

ing not his merely personal peculiarities, the things that distinguish him from other men, but his nature as man. Knowing yourself means knowing, first, what it is to be a man; secondly, knowing what it is to be the kind of man you are; and thirdly, knowing what it is to be the man *you* are and nobody else is. Knowing yourself means knowing what you can do; and since nobody knows what he can do until he tries, the only clue to what man can do is what man has done. The value of history, then, is that it teaches us what man has done and thus what man is."[30]

By what method does the historian seek to accomplish the purpose of history? How does he discern the thoughts which he is trying to discover? The only way he can do this is to rethink those thoughts in his own mind. This requires the exercise of sympathetic imagination on the part of the historian. He lives the past in his own mind, re-enacts the thought of the past. It has been truly said: 'Do you wish to understand the true history of a blade of grass? Try to become a blade of grass; and, if you cannot do it, satisfy yourself with analysing its parts, and even arranging them in a sort of ideal or fanciful history !'[31]

[30] *Ibid.*, p. 10.

[31] (Croce) *Ibid.*, p. 199.

So history is not to be regarded as a story of successive events. It is the unfolding of the mind of the historical thinker, an effort at self-study. Borrowing a Kantian phrase, Collingwood describes this view as marking a Copernican revolution in the theory of history. "Far from relying on an authority other than himself, to whose statements his thought must conform, the historian is his own authority and his thought autonomous, self-authorizing, possessed of a criterion to which his so-called authorities must conform and by reference to which they are criticized."[32]

(2) It is usually held that time is the soul of history. Droysen,[33] for instance, contrasts history which is a succession of becoming (das Nacheinander des Geworden) with nature which is the coexistence of being (das Nebeneinander des Seienden). The contrast, however, is not true because historical events may be coexistent and natural phenomena successive. That time is not *the* important factor in history may be shown thus. In one sense, of course, thoughts are events happening in time. But in another and more important sense, thoughts are timeless. As psychical occurrences they may be dated. As having logical significance, however, they are dateless. We have already shown how history is

[32] *Ibid.*, p. 236.

[33] In his *Grundniss der Historik* (Jena, 1858).

concerned primarily with thoughts—with thoughts as meanings. "If Mr. Whitehead is justified in calling the right-angled triangle an eternal object," remarks Collingwood, "the same phrase is applicable to the Roman Constitution and the Augustan modification of it. This is an eternal object because it can be apprehended by historical thought at any time; time makes no difference to it in this respect, just as it makes no difference to the triangle. The peculiarity which makes it historical is not the fact of its happening in time, but the fact of its becoming known to us by our re-thinking the same thought which created the situation we are investigating, and thus coming to understand that situation."[34]

In view of Collingwood's definition of the content of history as thought or Self-knowledge, and in view of his opinion that time is of little consequence to the truths of history, it is rather strange that he should maintain that history is 'wholly a reasoned knowledge of what is transient and concrete.'[35] Thought or Self-knowledge is not transient; nor is it concrete in the sense in which brute facts are. I would prefer to think that the purpose of history is to become aware of the eternal—which is the reality of ourselves—revealing

[34] Collingwood, *op cit.*, p. 218.

[35] *Ibid.*, p. 234.

itself in the temporal process. Our progressive realization of the eternal Self is the inner meaning of history. If only we could free ourselves from our time-obsession, and become time-binding instead of time-bound, we shall see how Time is a snare and a delusion if it is not regarded as the image of Eternity. An analysis of Time—even if it be to show its unintelligibility—becomes essential, therefore, in order not to be obsessed with it, and to understand the Reality which is its foundation.

VI

The problem of Time has puzzled the wits of thinkers in every age. In describing the difficulty of explaining what Time is, Augustine uses language such as a well-known text of the Upanishads[36] employs with regard to the knowledge of Brahman. What is Time? "Who", he asks, "can readily and briefly explain this? Who can even in thought comprehend it so as to utter a word about it? But what in discourse do we mention more familiarly and knowingly than Time? And we understand when we speak of it; we understand also when we hear it spoken of by another. What, then, is Time? If no one asks me, I know; if I wish to explain it to one

[36] *Kena Upaniṣad*, ii, 10.

that asketh, I know not."[37] A modern writer on the problem of Time prefaces his inquiry with a statement of the difficulties that beset such an inquiry. Using allegorical language, he says, "Many doubtful characters are met with by the pilgrim through the valley of 'Time' as he approaches the hill Difficulty. Many Interpreters ask to be heard. There is Mr. Facing-both-ways, who professes to see both past and future. There is Giant Despair, who waves four different senses of 'simultaneity' and two senses of 'subjectivity' before him in order to puzzle him and allure him to Doubting Castle, where he is forced to believe that Time is nothing at all. There is Mr. By-ends, ready to say anything about it so long as it works. There is Hopeful, to whom the gates of the Future are wide open, but whose views suffer from subjectivity, mental subjectivity. He will not believe what he has not himself lived and experienced. But those who proceed by inner sense lose their sense of direction in this world. They perish lamentably in the Valley of the Shadow of Objectivity. Some never set out on the great quest for they are entangled in a system of relations. Others rely upon their substance, others upon their measurements. Some, too,

[37] Augustine, *Confessions,* Bk. XI, 17. See J. A. Gunn, *The Problem of Time,* George Allen & Unwin Ltd., London, 1929, p. 33.

profess a belief in temporal signs, but verily no sign is given to them."[38]

I shall not attempt here to remove all the tangles of the Time-problem. The more one probes into its nature, the deeper one gets into the morass of unknowing. A glance at the various ways in which not only metaphysicians, but also mathematicians, physicists and psychologists have sought to solve the problem will reveal the fact that Time by its very nature is indeterminable (*anirvacaniya*). A more profitable inquiry would be to ask: What is the purpose of Time? What is its inner meaning?

Before we proceed to wrestle with the metaphysics of Time, let us look for a while at what physicists and psychologists have done about Time. To the mathematical physicist what is important about time is its measurement. What interests him is the quantitative problem. So, the time which he studies is an abstraction from lived duration. In the place of past, present and future, what is relevant for physics is the logical relation

[38] J. A. Gunn, *op. cit.*, pp. 10-11. Also see Shadworth Hodgson's *Metaphysics of Experience*: 'Few terms in philosophy are used in greater varieties of significations than the term *Time*, and since it is at once one of the most familiar, as well as one of the most fundamental, of all our ideas, the ambiguities and differences of opinion to which it gives rise are, as may easily be imagined, almost ineradicable.'

of before-and-after, expressed in terms of numbers. To the physicist diversities in time are irrelevant, for he treats time as a homogeneous continuum, as serial and ordered, and thereby admitting of measurement.

In order that measurement may be made, there must be a standard unit, and that unit must remain constant.[39] The difficulty with regard to measuring time is that it 'passes away.' It is not possible to place intervals of time side by side and compare them, because the intervals are successive and not simultaneous. It is true that different devices have been employed to measure time, 'such as the burning of a candle, the operation of the sand-glass, the shadow of the sundial, water-clocks, mechanical clocks, and chronometers.' For our universe the sun serves as the standard of reference. Day and night and the annual seasons are all measured with reference to the sun. For a wider field than the solar system, what is employed is the velocity of light. It is evident, then, that time is measured by motion in space. Without resorting to signs, marks, or signals in space, it is not possible to measure time. And, since there are many ways of measuring time, it is

[39] M. F. Cleugh, *Time and Its Importance in Modern Thought* (Methuen & Co., Ltd., London, 1937), p. 40: 'A yard-stick that was twice as long on Monday as it was on Tuesday would be useless.'

not right to vote in favour of one and reject the rest. As Poincare pointed out, "there is not one way of measuring time more true than another; that which is generally adopted is only more convenient. Of two watches, we have no right to say that the one goes true, the other wrong. We can only say that it is advantageous to conform to the indications of the first."

It took a long time, however, for thinkers to arrive at the relativity of time. Newton conceived of Real Time as an Absolute "which in itself and from its own nature flows equally without relation to anything external." He distinguished it from apparent time which is a merely sensible and external measure such as hour, month, year, etc. "All motions may be accelerated and retarded, but the true or equable progress of Absolute Time is liable to no change. The duration or perseverance of the existence of things remains the same (whether the motions are swift or slow or none at all), and therefore it ought to be distinguished from what are only sensible measures thereof."

A great turning point in the conception of Time came with what is known as the Michelson-Morley experiment.[40] Eddington

[40] In 1881 Michelson began his experiments. Six years later he repeated it in conjunction with Morley. In 1905 the same experiment was carried out by Morley and Miller.

compares this experiment to the Prince of Denmark in a performance of *Hamlet*. The aim of the experiment was "to arrive at a measurement and comparison of two times or of the time-intervals between two sets of events under different conditions."[41] Explaining some of the consequences of this experiment, J. A. Gunn observes as follows: 'As a result of this experiment certain important facts about time appear to be established, or, more strictly, certain facts about time-measurement. The velocity of light, on which time-measurement signals are based, must be taken as the same with respect to various bodies, or, more strictly, various "inertial systems" (i.e., systems in which the law of inertia as conceived by Galileo and Newton holds good). Seemingly paradoxical effects follow with regard to time. These may be expressed as a "dilation" of time, i.e. certain events which on one system are simultaneous, in another are reckoned as successive, and *vice versa*, so that local or multiple times are set up. This occurs if one system be absolutely at rest and all the other systems are in motion relative to it. Although the facts of the Michelson-Morley experiment tend to show that there can be no absolutely stable point in the universe to which motion can be referred, nevertheless the imagination tends

[41] J. A. Gunn, *op. cit.*, p. 415.

to retain *one* system for reference. The philosophical consequences of this are vital, and we neglect them only at grave peril. For if one system be used as a reference, the measurement of time which results therefrom is different from that of the older physics and much more novel. Simultaneities in one system become successions in another.'[42]

The Michelson-Morley experiment together with the researches of scientists like Lorentz and Fitzgerald, led Einstein to formulate his theory of Relativity. We are not interested in the technical details of this theory. We need only to know that it has upset the Newtonian ideas of space, time and motion as absolute physical reference systems, and has made all time-measurements relative. No system of reference can claim to be absolute—even ether is not absolute. The observer within any system will have no means of knowing whether his system is in motion or at rest. But he makes it a system of reference and conceives all the other systems in relative motion in regard to it. Simultaneity, then, is relative, according to Einstein; it is relative to the systems of reference.

Zeno's paradoxes of the Flying Arrow and of Achilles's race with the Tortoise used to be wondered at. The paradoxes to which the

[42] J. A. Gunn, *op. cit.*, p. 187.

Theory of Relativity has given rise are even more wonderful. Langevin of the College de France gives a description of the imaginary "man in the projectile who left the earth at a speed just a little less than of light. He was away for two years, but found on his return to earth that not two years but two centuries had elapsed!"[43] Eddington introduces us to "an aviator travelling at 161,000 miles per hour, who lights a cigar. We also do so, and the result is paradoxical. The aviator finds our cigar lasts twice as long as his. We find his cigar lasts twice as long as ours."[44] The paradoxes become more bizarre if we take cases of an observer moving with a speed greater than the velocity of light.[45] Such an observer moving away from the earth would see the time-order of events on the earth reversed, for during his journey he would catch up successively the waves of light which had left the earth before him. Says Nordmann, Astronomer of the Paris Observatory, "After a time, our man or superman will witness the Battle of Marne. He will first see the field strewn with the dead. Gradually the dead will rise and join their regiments and presently they will be seen in

[43] J. A. Gunn, *op. cit.*, p. 201.

[44] *Ibid.*, p. 202.

[45] According to the calculations of Romer made in 1675, the velocity of light is 186,000 miles per second.

groups in Galieni's taxis, which will travel backwards at full speed to Paris, arriving in the midst of a population that is extremely anxious about the issue of the struggle, and the soldiers will, naturally, be unable to give them any news."[46] To quote but one more paradox, now in the form of a verse:

> There was a young lady of Bright
> Whose speed was faster than light;
> She eloped one day
> In a relative way,
> And returned on the previous night.

I must hasten to add that we are assured by the relativity-scientists that all these paradoxes do not make any difference to *our* way of life on the earth. To a supernormal observer, speeding away faster than light, it is true, "the child would be at school before the mating of its mother, a man's death would occur before his birth, as in a reversed film of the cinematograph."[47] But to us, the film moves in perfect order, birth comes before death, conception before birth. "Einstein's assertion that simultaneity is relative," says Cleugh, "has no derogatory effect at all—except as the result of confusion—upon the

[46] *Einstein and the Universe* (E.T.), p. 77.
[47] J. A. Gunn, *op. cit.*, p. 203.

certainty of the plain man that his judgments of simultaneity are true."[48]

There is one more development of modern mathematical physics, which is also a result of the Theory of Relativity, that we should take note of before we bid goodbye to physical time. I refer to the hyphenating of space and time, which is usually associated with the work of Minkowski. "From henceforth," proclaims this noted scientist, "space by itself and time by itself are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality."[49] Time now becomes the fourth dimension. Between space and time, it is urged, there is no intrinsic difference. As Palagyi pointed out, before Minkowski, "At a point of time we have all space, and a point in space involves the whole of the time-stream."[50] Every point is a "space-time-

[48] M. F. Cleugh, *op. cit.*, p. 59. See also Eddington, *The Theory of Relativity and its Influence on Scientific Thought*, p. 18: "Those who suspect that Einstein's theory is playing unjustifiable tricks with time should realize that it leaves entirely untouched that time succession of which we have intuitive knowledge, and confines itself to overhauling the artificial scheme of time which Romer first introduced into physics."

[49] *The Theory of Relativity* (Volume of collected monographs, E.T.), p. 75. Also p. 76: "Nobody has ever noticed a place except at a time, or a time except at a place."

[50] See J. A. Gunn, *op. cit.*, p. 208.

point" or "world-point"; and succession in the occupation of places is co-existence in a space-time line or world line. The hyphenating of space and time, however, does not mean that there is no difference between the two. When it is said that the dimensions of space-time are at right angles to each other, the implication is not that time is somehow reduced to a dimension of space. On the contrary, it is precisely in order to show that time is different from space that in a time-interval graph time is put at right angles to space. As Einstein himself observes, "The non-divisibility of the four-dimensional continuum of events does not at all, however, involve the equivalence of the space co-ordinates with the time co-ordinate. On the contrary, we must remember that the time-co-ordinate is defined physically wholly differently from the space co-ordinates."[51]

In all discussions of the mathematico-physical conception of time, it is essential to remember that the metaphysical side of the problem is not in the least touched. As Cassirer rightly warns, the Theory of Relativity is a purely physico-mathematical theory, and its results should not be interpreted in speculative and metaphysical

[51] *The Meaning of Relativity* (E.T.) (Methuen & Co., Ltd., London, 1922), p. 34.

terms.[52] Einstein himself is quite positive about this. "As far as the laws of mathematics refer to reality," he says, "they are not certain; and as so far as they are certain, they do not refer to reality."[53] It is a mistake, then, "to suppose that physical theories can ultimately solve the *metaphysical* problem of time."[54] And, if scientists attempt to make a metaphysical use of their discoveries, one may legitimately ask them to "keep off the grass."

We shall now turn to a brief consideration of psychological time. If the mathematical physicist is concerned with the before-after relation, the psychologist studies time as past-present-future. It is true that the relativity-physicist brings into his picture the *observer.* But here, it is not the *mind* of the observer that matters, but only his *position;* whereas for the psychological time it is the mind that is important. Physical time is *contemplated,* whereas mental time is time *enjoyed.* The psychological problem is not how Time itself comes to be, but how the individual comes by it. The psychologist is

[52] *Substance and Function and Einstein's Theory of Relativity* (E.T.) (The Open Court Publishing Co., Chicago, 1923), p. 409.

[53] *Sidelights on Relativity* (Methuen & Co., Ltd., London, (E.T.), 1922), p. 28.

[54] M. F. Cleugh, *op. cit.*, p. 71.

concerned not with Time as such, but with our *awareness* of time.

As I have already said, psychological time is in the form of past-present-and-future. The part of time we are immediately conscious of is the present. But this present is not the mathematical present which is instantaneous. The psychological present which is *our* present is a stretch of time, a slab of duration. It is never a *point*, but a certain *length* of the time-line. This has come to be known as "the specious present." William James's famous description of it is that it is "no knife-edge, but a saddle-back, with a certain breadth of its own on which we sit perched, and from which we look in two directions into time. The unit of composition of our perception of time is a *duration*, with a bow and a stern, as it were,—a rearward and a forward-looking end. It is only as parts of this duration-block that the relation of *succession* of one end to the other is perceived."[55]

We experience the present, remember the past, and anticipate the future. As regards our knowledge of the past, it has been urged by Dewey that it is no knowledge at all. The pragmatist in him makes him say that "Anticipation is more primary than recollection; projection than summoning of the past; the

[55] *Principles of Psychology* (Macmillan & Co., Ltd., London, 1890), Vol. I, p. 609.

prospective than the retrospective."[56] "To isolate the past," he adds, "dwelling upon it for its own sake and giving it the 'eulogistic' name of knowledge, is to substitute the reminiscence of old age for effective intelligence." A philosopher of history, such as Collingwood, would go to the other extreme and say, as does Collingwood quoting Hegel, that the future is an object not of knowledge but of hopes and fears.[57] For a philosophical justification of this view one may go to Broad who believes that the future is not real, it is nothing.

But cannot the future be known? Traditionally, prophets, astrologers and soothsayers have claimed the power of seeing the future in advance. Now, this phenomenon of precognition has been brought into the ordinary observational and experimental fields. Dunne in his work *An Experiment with Time* gives an account of the dreams he saw, several days in advance, and in one case twenty years earlier, of happenings in wakeful life. In such cases, the wakeful future becomes the dream-present. And, Dunne claims that, "provided one were able to steady one's attention to the task, one could observe

[56] Dewey, *Creative Intelligence* (Essays in the Pragmatic Attitude, by John Dewey and others, Henry Holt and Co., New York, 1917), p. 13.

[57] Collingwood, *op. cit.*, p. 120.

the 'effect' just as readily when awake as when sleeping."[58] J. B. Rhine of Duke University and his co-workers have been conducting experiments to show that the mind has the power to transcend the limitations of space and time. From the brain-centred or cerebrocentred conception of most modern psychology, they argue for the mind-centred or psychocentric view of man. Extrasensory perception (ESP) is possible, it is urged, not only of distant events in space but also of future events in time. For such ESP ability there is no need to turn to abnormal individuals; quite normal persons are able to foresee the future, though at the time of their seeing they may not know that it is the future they see.

A psychological consideration of time as past-present-and-future leaves us, thus, in confusion. From darkness we seem to enter into greater darkness. An analysis of the specious present revealed that it is not a point or instant, but a length of time, in which case a part of the past and a part of the future must form parts of it. And, yet, we distinguish past, present and future as distinctive characteristics of events. We speak of time flowing like a river. Still it is not easy to tell whether time moves past us or we move

[58] *An Experiment with Time* (Faber and Faber Ltd., London, 3rd edn., 1934), pp. 119-120.

past time. Our estimates of time vary notoriously. In certain situations time drags on, in certain others it is fleet-footed. "Full and pleasant time seems long in retrospect, short in passing, while boring periods, long to live through, are mercifully short in retrospect."[59] To different people time has different grades of values; to some it is even a disvalue. The city-dweller frets and fumes if his watch should run slow even by two minutes. The rustic manages to live even in the absence of a calendar. There is no uniform calendar either. In his message to the Calendar Reform Committee, the Prime Minister of India is reported to have remarked, "I am told that we have at present thirty different calendars, differing from each other in various ways, including the methods of time reckoning."[60]

The difficulties with regard to psychological time are no less formidable than those with reference to physical time. If, as Plotinus said, to measure time is not to know its nature, even to study time as it appears to us in our mental life does not give us the reality of time. In despair, then, we turn to philosophy, and what we find there is not an unanimous verdict on Time, but a metaphysical wrangle, the principal contestants being the idealists and the realists.

[59] J. A. Gunn, *op. cit.*, p. 379.
[60] *The Hindu*, Madras, February 22, 1953.

William James divides philosophers into the tough-minded and tender-minded, identifying the former with the realists and the latter with the idealists. It is usual to say that every man is born either a Platonist or an Aristotelian, indicating thereby that there are two contrasted natures among human beings, the in-turned and the out-turned. For the idealist mind is the creative principle and ultimate form of reality, while for the realist 'mind is merely one in a democracy of things.' Time for the idealist is subjective, whereas for the realist it is objective in character. Idealism has, on the whole, tended to minimize the importance of time, while the different forms of Realism have been vying with one another in glorifying it.

The subjective view of time is that it is a form of mind. Kant regards time as a pure form of our sensuous intuition. While space is a form of the outer sense, time is a form of the inner sense. Time is not an object which can be perceived. It is an *a priori* mode by conforming to which the given becomes given. It is "a rule of the understanding through which alone the existence of phenomena can receive synthetic unity." In order that the categories of the understanding may be applied to the manifold given to us in sense perception, they have to be schematized, i.e., grasped through the

medium of time. The distinctive feature of time is "succession." It is that which makes for the coming into being and passing away of things. Between subjective succession and objective succession, Kant does make a distinction. There is a difference, for instance, between our looking at a house and our viewing a boat gliding down a river. In seeing a house we may first notice the roof and then the basement, or *vice versa*. But with regard to the moving boat, the order of our beholding it at successive moments is fixed. This difference, however, between the sequence of perceptions and the succession of events is difficult to explain on the Kantian theory that time is an *a priori* form. In spite of variations between the earlier and the later portions of his first *Critique* with regard to the teaching about time, Kant sticks to one opinion, viz., that time does not belong to objects as they are in-themselves, but only to the subject that perceives them. Time is empirically real, i.e., it is a condition of all experience; and it is transcendentally ideal, i.e., when abstracted from the subjective conditions of perception it is nothing.

In Bergson's estimation, Kant is not subjective enough, for he quarrels with Kant for accepting the Newtonian conception of time as a mere homogeneous medium. For Bergson it is space that is homogeneous.

Physical scientists spatialize time and take it to be just another homogeneous medium. They try to make a distinction between the two homogeneities by saying that space is characterized by side-by-sidedness and time involves succession. But really they are guilty of an illicit hybrid conception. They wrongly introduce the notion of space into the states of consciousness. Things in space are external to one another; not so are conscious states. It is an illegitimate view of time to think that it is a homogeneous medium in which conscious states are separated from one another and spread out like "things." Time conceived in that fashion is "nothing but the ghost of space haunting the reflective consciousness." Spatialized time is not time at all. The only real time is *la duree,* which is a ceaseless, continuous flow, and is itself Reality. Bergson's *la duree* is not 'duration.' The English word implies *lastingness,* something enduring through a period of time, as also objective measurement. This is exactly what *la duree* does not mean. *La duree* is a ceaseless *flow.* Again, it is not a mere continuum, for it is characterized by the complete interpenetration of its parts. To talk of its 'parts' too is not correct. It is not as if the parts come first, and then are intermixed. *La duree* is an integral unity, and is purely heterogeneous.

This essential interconnectedness we realize in ourselves. "There is a succession of states, each of which announces that which follows and contains that which precedes it. They can, properly speaking, only be said to form multiple states when I have already passed them and turn back to observe their track. Whilst I was experiencing them they were so solidly organized, so profoundly animated with a common life, that I could not have said where any one of them finished or where another commenced. In reality no one of them begins or ends, but all extend into each other."[61] Thus, reality is an unceasing flux, and is realized in intuition. If we rely on the intellect, it can only cut reality into bits and serve it as *dead*. By resorting to the artificiality of intellectual abstraction, what we do is this: "Instead of attaching ourselves to the inner becoming of things, we place ourselves outside them in order to recompose their becoming artificially. We take snapshots, as it were, of the passing reality."[62] It is not time as passed that is real, but time as passing.

The charge of ultra-subjectivity has been levelled against Bergson. Eddington expres-

[61] Bergson, *Introduction to Metaphysis* (Macmillan and Co., Ltd., London, 1913, E.T.), pp. 9-10.

[62] Bergson, *Creative Evolution* (E.T.) (Macmillan and Co., Ltd., London, 1911), p. 322.

ses this charge in the form of a comment on an imaginary meeting between the Astronomer-Royal and Bergson. "I rather think that the philosopher would have had the best of the verbal argument. After showing that the Astronomer-Royal's idea of time was quite nonsensical, Professor Bergson would probably end the discussion by looking at his watch and rushing off to catch a train which was starting by the Astronomer-Royal's time."[63]

It is not easy to choose from the realist group, especially as several of them have been changing their views with every decade. For my present purpose I am selecting Alexander because he is one of those philosophers, in recent times, who have given prominence to Time,[64] and because he has sought to combine realism with the philosophy of evolution. The stuff of reality and the source of evolution is, according to Alexander, Space-Time. Though he was influenced by Minkowski and other physicists, Alexander's approach to the problem is philosophical; and he claims that he has arrived at a notion of Space-Time 'by purely analytical or metaphysical and non-

[63] Eddington, *Nature of the Physical World* (The University Press, Cambridge, 1929), p. 36.

[64] Alexander, *Space, Time, and Deity*, Vol. I (Macmillan and Co., Ltd., London, 1920), p. 36: "To realize the importance of Time as such is the gate of wisdom."

mathematical methods.' Alexander's Space-Time is more than space *plus* time. Space and Time are usually thought to be independent and separate. "But a little reflective consideration," says Alexander, "is sufficient to show that they are interdependent, so that there neither is Space without Time nor Time without Space; any more than life exists without a body or a body which can function as a living body exists without life; that Space is in its very nature temporal and Time spatial."[65] Space and Time are not merely connected in fact; they are necessary to each other. For, without Space Time would perish, and without Time Space would be a blank. The continuity of time, the togetherness of past and future, is impossible without Space. Time would be a mere 'now' but for Space. Similarly, Space is saved from being an empty negation by Time. "Without Space there would be no connection in Time. Without Time there would be no points to connect.... There are no such things as points or instants by themselves. There are only point-instants or *pure events.* In like manner there is no mere Space or mere Time but only Space-Time or Time-Space."[66] The relation between Time and Space is comparable to that between soul and body. Says

[65] *Ibid.,* Vol. I, p. 44.
[66] *Ibid.,* Vol. I, p. 48.

Alexander, "Time as a whole and in its parts bears to Space as a whole and its corresponding parts a relation analogous to the relation of mind to its equivalent bodily or nervous basis; or to put the matter shortly, . . . Time is the mind of Space, and Space is the body of Time."[67] That is why the features of the one depend for their character on those of the other. If Space, for instance, has three dimensions, it is because Time is successive, irreversible, and uniform in direction. The one reality, then, is Space-Time of which the space-times of individual observers are perspectives. And, it is Space-Time that makes for creativity and is the basis of evolution. All emergents evolve out of it, including mind which has arisen already and deity which is yet to come.

While Bergson exalted Time and deprecated Space, Alexander puts them together into a complete reality. Time for Alexander 'is really laid out in Space, and is intrinsically spatial.' But in spite of introducing a hyphen between Space and Time, Alexander has not made clear the relation between them. The comparison with the mind-body relation is not very helpful, for Alexander himself recognizes that the mind-body relation is more developed than the time-space relation. The remark made by J. A. Gunn in this connec-

[67] *Ibid.*, Vol. II, p. 38.

tion is interesting. "The problem of Time is not made clear," he says, "by a welding together of Space and Time into a new hybrid conception for which no single word exists or has yet been invented and which is merely the hypened form Space-Time. To the *true* marriage of ideas we do not admit impediments, but although *'deity'* has been invoked to hallow this union we do not feel called upon to affirm that what Alexander has joined together no man shall put asunder."[68]

While for the new realists, like Spaulding, Time is an absolute in its own right apart from things, and is a continuous manifold of instants, for the neo-idealists, like Gentile, Time, along with Space, is a form in which reality which is the universal Thought or Spirit sets itself out. Since Reality or Spirit is also activity, Time is essential to it. "We are not in Space and Time," says Gentile, "they are in us."

Just as in Western thought, so in Indian philosophy there is a variety of views about Time. That there is no single measure of time is indicated by the *Pauranika* estimate of varied time-spans. A single day of Brahma, the Cosmic Creator, it is stated, comprises no less than 432,000,000 years of men. The

[68] *Op. cit.*, p. 264.

higher a being is in the scale of evolution, the quicker time passes for it. The longer a being lasts, the more evolved it is considered to be. There are among schools of Indian thought some which regard time as a subjective mode of the mind, and others which take it as an independent reality. Buddhism does not accord to Time an absolute status. Even for the realistic Vaibhashika *sva-lakshanas,* which constitute the basis of the external world; have neither extension nor duration. Time, like Space, is a form contributed by the mind to experience; it is not a constituent of the world. In the realism of the Nyaya-Vaiseshika, time (*kala*) is one of the nine primary substances (*dravyas*), and is objectively real. It is infinite and without parts, and can be measured only indirectly by some object possessing parts, such as the movement of the sun. The division of time into seconds, minutes, etc. is conventional. The primary substances such as the elements, soul and mind are not in time. It is only the secondary substances, such as pot and physical body, that are in the time-process. The theistic systems adopt a realistic view of Time, and assign to it a vital role in the creative process. In Visishtadvaita, time is real, though it does not fall outside Brahman, as there is nothing outside of Brahman. Like prakriti, time evolves; and its evolutes are moments, hours, etc. A difference in status

is made between time and space. While time is coordinate with prakriti, space is a product of prakriti. In the Pancharatra, *maya-sakti*, *niyati*, and *kala* are constrictors which make the soul lose its natural perfection. Time is that which makes for the maturation of all things. The time that we experience is not the highest. It is but time as an effect (*karya-kala*). That which causes it is impartite time (*akhanda-kala*). This is unchanging and indivisible. In Saiva Siddhanta, *kala* (time) is one of the five *kancukas* (constrictors) which envelop the soul and make it one of the evolutes known as *purusha-tattva*. *Kala* (time), along with *niyati* (destiny or necessity), and *kala* (lit. particle, meaning the principle of finitude), are produced from *asuddha-maya* through the functioning of the power of *Sadasiva;* and from *kala* (particle) the other two *kancukas*, viz., *vidya* (knowledge) and *raga* (attachment) are produced.*

The paradoxes metaphysical time involves us in are no less pernicious than those of physical time and psychological time. What is time? What is its relation to space? Is time single or multiple? Is it identical with events, or different from them? Is it the same as

*See the present writer's contribution on 'Śaiva Siddhānta' in *History of Philosophy: Eastern and Western*, Vol. I, p. 371 (George Allen & Unwin Ltd., London, 1952).

change, or is it that in which there is change? These are some of the questions which continue to puzzle the philosophers. It is usually said that time flows. Does it flow as a whole or only in parts? If the whole of time flows, then past, present and future which are parts of time must be simultaneous, which is absurd. The same absurdity persists if we say that the parts of time flow. When it is said that time flies, one would like to ask: wherein does it fly? It cannot fly in space, for, then, time would be a spatial thing. If it flies in time, then we have the paradox of two times, one which moves and the other which is unmoving. When we are placed in such an awkward situation, we are inclined to agree with Alice in the observation she made to Mad Hatter in her Wonderland: "I think you might do something better with the Time than waste it asking riddles with no answers."

The contradictions that are inherent in the concept of time have been exhibited clearly by the absolute idealists of the West, like McTaggart and Bradley. McTaggart shows the self-contradictory nature of time by examining the past-present-future relation and before-after or earlier-later relation. The former he calls the *A* series and the latter the *B* series. As regards the *A* series, he says that past, present and future should be regarded as relations, and not as qualities of objects or events. And

if they are relations, they must relate events to something which is itself not in time. But what this something is it is difficult to say. Moreover, past, present and future are incompatible characteristics, and yet every event has them all—which is obviously a contradiction. As regards the *B* series, it is only derivative and is not essential to time. What is essential to time is change, and the *B* series alone cannot account for change. Bradley, who among the moderns has influenced me most, argues dialectically that time must be an appearance. Time, he says, "is a relation—and, on the other side, it is not a relation; and it is, again, incapable of being anything beyond a relation . . . If you take time as a relation between units without duration, then the whole time has no duration, and is not time at all. But, if you give duration to the whole time, then at once the units themselves are found to possess it; and they thus cease to be units. Time in fact is 'before' and 'after' in one; and without this diversity it is not time. But these differences cannot be asserted of the unity; and, on the other hand and failing that, time is helplessly dissolved."[69] A similar fate overtakes time when it is regarded in the form of past-present-future. "Time is so far from enduring the test of criticism," observes Bradley, "that at a touch

[69] *Appearance and Reality*, Swan Sonnenschein & Co., Ltd., London, 1908, p. 39.

it falls apart and proclaims itself illusory."[70] Yet, he is compelled to admit that, though a mere appearance, time exists and "must somehow in some way belong to our Absolute."[71]

My own view of time is very similar to that of Bradley, but without, I believe, its contradiction. When Bradley says that time is illusory, I understand; but when he adds that it must *belong* to the Absolute, I do not. To attempt to relate the appearances to Reality and to characterize the relation as a belonging is, I think, an unwarranted procedure. From the standpoint of the Absolute—if standpoint it may be called—there cannot be time. In the plenary experience, *Brahmanubhava*, time cannot be, even as in perfection imperfection cannot be. But to the inquiring intellect time must present a perpetual puzzle. Like *maya*, time is indeterminable (*anirvacaniya*).

VII

What, then, it may be asked, is the purpose of time? Its purpose, I would say, is to serve as the gateway to Reality. As Lotze said, to ask, what is the nature of time is to ask, what is the nature of Reality. In other words, our inquiry into the nature of time must lead us to an understanding of the nature of Reality. The purpose of the notion of time is the same as what, according to Gaudapada, is the object

[70] *Ibid.*, p. 207.
[71] *Ibid.*, p. 205.

of the teaching about creation. Says the great Advaita teacher, "The creation which is urged in different modes with the illustrations of clay, metal, sparks, etc. is only a means of introducing (the truth of non-difference). In no way is there any difference."[72] Just as the creation-texts have no purport of their own, but are designed to serve the purpose of introducing the texts which declare non-duality, the discussion of time is not an end in itself, but must take us to the knowledge of the Real. So, instead of saying, as McTaggart does, that the last enemy to be overcome, before we achieve Eternity, is Time, we would rather say that Time, if properly approached, can be our friend inducting us into Eternity. To employ a beautiful imagery of the Upanishad, while the different orders of creation are as food for Brahman, Time (here called Death) is a sauce (*upasecana*).[73] Just as a sauce makes consumption of food (even when it is insipid) possible, even so Time serves as the channel for all the orders of creation to return to their source which is the eternal Brahman. But Time is not left behind, for it too is consumed. As Shakespeare says,

> "And time, that takes survey of all the world,
> Must have a stop."

[72] See the present writer's *Gaudapāda: A Study in Early Advaita* (University of Madras, 1952), p. 112.

[73] *Kaṭha Upaniṣad*, ii, 25.

Meditation on time is recommended in the Upanishads as a method for getting beyond time to the timeless reality which is Brahman. In the *Maitri Upanishad*, for instance, time is said to be one of the principal forms of the supreme, immortal, unembodied Brahman.[74] As thus it is to be meditated on. The supreme Brahman is not in the sphere of what is seen, and it is without shape. So, the mind cannot be dissolved in it directly. One of the indirect ways of mind-dissolution is the contemplation of time as the image of Brahman.[75] Meditation always implies imaginative substitution. It involves necessarily a makebelieve. But it is useful in that it leads us through the image to the real. The image may be external or internal, gross or subtle. As one progresses in meditation, one makes the image more and more subtle. Of the most subtle images of Brahman, time is preeminent. The fruit of time-meditation is not to cling to time as if it were ultimately real, but to transcend it. As

[74] *Maitrī,* iv, 6. agryāstanavah parasya amṛtasya aśarīrasya brahmaṇah.

[75] Cp. Plato: Time is the moving image of Eternity. See Ramatīrtha's commentary on *Maitrī,* iv, 6; parasya brahmaṇah agocaratvāt nirākāratvāt tasmin sākṣān-manonirodham kartum aśaknuvatām prathamam agnyādi-devatāsveva yathāruci brahmadṛṣṭyopāsanam śrutiṣu upadiśyate.

the Upanishad declares, "He who worships time as Brahman, from him time withdraws afar."[76] He ceases to be time-bound.[77]

The same result, viz., that the implication of time is the timeless, is reached by the hero of Hermann Hesse's novel *Siddhartha*. Addressing Vasudeva, his mentor and ferryman, Siddhartha "once asked him, 'Have you also learned that secret from the river that there is no such thing as time?' A bright smile spread over Vasudeva's face. 'Yes, Siddhartha,' he said. 'Is this what you mean? That the river is everywhere at the same time—at the source and at the mouth, at the waterfall, at the ferry, at the current, in the ocean and in the mountains, everywhere—and that the present only exists for it, not the shadow of the past, nor the shadow of the future?' 'That is it,' said Siddhartha. 'And when I learned that, I reviewed my life and it was also a river, and Siddhartha the boy, Siddhartha the mature man and Siddhartha the old man, were only separated by shadows, not through reality. Siddhartha's previous lives were also not in the past, and his death and his return to Brahma are not in the future. Nothing was, nothing will be—everything has reality and presence'

[76] *Maitrī*, vi, 14:—yah kālam brahmety upāsīta kālas tasyātidūram apasarati.

[77] *Ibid.*, Ramatīrtha's commentary:—kāla-vyāpyo na bhavati.

Siddhartha spoke with delight. This discovery made him very happy."[78]

VIII

"There are two forms of Brahman: Time and the Timeless," says the *Maitri Upanishad*, "That which is prior to the sun is the Timeless (*akala*), without parts (*akala*). But that which begins with the sun is Time, which has parts."[79] Further on, the Upanishad quotes an ancient verse:

> 'Tis Time that cooks created things,
> All things, indeed, in the Great Soul (*mahātman*).
> In what, however, Time is cooked--
> Who knows that, he the Veda knows.[80]

Time is said to cook because it makes everything mature and resolve in Brahman. But Time itself is cooked ultimately and is resolved in Brahman. Time is not the true nature of the Absolute. Time is with parts, whereas the Timeless is without parts. Brahman is the Timeless.

The expression 'timeless' as applied to the Absolute has been objected to. "By the super-temporal I do not mean the time-less," says the Rev. A. G. Hogg, "The purely time-less must neither change nor last, for both change and lastingness are features of the temporal;

[78] *The Illustrated Weekly of India*, Bombay, Vol. lxxiii, 49, Dec. 7, 1952, p. 37.

[79] *Maitrī*, vi, 15.

[80] R. E. Hume, *op. cit.*, p. 434.

and what neither lasts nor changes must be unreal."[81] I accept the premise that change and lastingness cannot be predicated of the timeless. But I do not see how the conclusion follows, which is that the timeless must be unreal. Change and lastingness are characteristics of time. These cannot characterize the timeless even when it is called the super-temporal. To attribute these to the super-temporal is to make it temporal. Change and lastingness have meaning *in* time, and not *beyond* it.

What the time-philosophers have done is to ascribe change and lastingness to the Absolute thereby making it temporal, or to hypostasize time and call it absolute. The latter is what Bergson has done; and all the evolutionary realists have done the former.

For Bergson, as we have seen, the Absolute is that particular form of time which he calls *la duree,* a ceaseless flux, a living and changing becoming. "He who instals himself in becoming", says Bergson, "sees in duration the very life of things, the fundamental reality. The Forms, which the mind isolates and stores up in concepts, are then only snap-shots of the changing reality. They are moments gathered along the course of time; and, just because we have cut the thread that

[81] *The Challenge of the Temporal Process,* p. 20.

binds them to time, they no longer endure."[82] Explaining Bergson's view of reality, Russell observes, "In reality there are no separate solid things, only an endless stream of becoming, in which nothing becomes and there is nothing that this nothing becomes. But becoming may be a movement up or a movement down: when it is a movement up it is called life, when it is a movement down it is what, as misapprehended by the intellect, is called matter. I suppose the universe is shaped like a cone, with the Absolute at the vertex, for the movement up brings things together, while the movement down separates them, or at least seems to do so."[83] All reality, then, is tendency, according to Bergson, an incipient change of direction.[84] This is identified with life, activity, *elan vital,* which creatively evolves. This is even called God.

Apart from the inherent difficulties in Bergson's metaphysics such as the dualism of life and matter and the opposition of intuition and intellect, I do not see how time as a perpetual flux could be regarded as the *ultimate* reality. How time could create without anything to create, how there could be becoming without anything that becomes, and how

[82] *Creative Evolution,* pp. 334-5.

[83] Bertrand Russell, *History of Western Philosophy* (George Allen & Unwin Ltd., London, 1946.), p. 822.

[84] Bergson, *An Introduction to Metaphysics,* p. 56.

this Becoming, even though capitalized, could be the God of religion are problems which must remain unsolved. As Radhakrishnan puts it, "Bergson's cosmic principle seems to be the mirror of the twentieth-century soul which lives in an atmosphere of constant hustle and excitement in a perennial maelstrom of events. The world becomes unintelligible caprice since the creative principle is looked upon as obeying no laws, and fulfilling no ends. In short, absolute chaos would prevail, in which nothing rational could be undertaken. Unbridled force or mere change without a controlling element would mean death or confusion. Chaos is God."[85] This is the result of a belief in going without a goal, in process without a purpose, in time for time's sake. "Those to whom activity without purpose seems a sufficient good will find in Bergson's books a pleasing picture of the universe. But those to whom action, if it is to be of any value, must be inspired by some vision, by some imaginative foreshadowing of a world less painful, less unjust, less full of strife than the world of our everyday life, those, in a word, whose action is built on contemplation, will find in this philosophy nothing of what they seek, and will not regret that there is no reason to think it true."[86]

[85] *The Reign of Religion in Contemporary Philosophy* (Macmillan & Co., Ltd., London, 1920), p. 181.
[86] Russell, *op. cit.*, p. 838.

In my discussion of metaphysical time, I chose Alexander as the representative of the evolutionary realists. Here, I shall deal with his notion of the Deity. The Deity, according to Alexander, has not yet emerged out of the Space-Time matrix. It is the next item on the agenda. "Deity is the next higher empirical quality to mind, which the universe is engaged in bringing to birth," says Alexander, "That the universe is pregnant with such a quality we are speculatively assured. What that quality is we cannot know; for we can neither enjoy nor still less contemplate it. Our human altars still are raised to the unknown God."[87] The Deity, then, is a *nisus* and not an accomplishment. It is what is to-be and not what-is or has-been. It is by no means the highest possible emergent either. No one can tell what possibilities are in the womb of Space-Time. All that we can say is that it is the next to be begotten by Time on Space-Time.

Alexander is not alone in placing the Deity in the future. A recent writer, Mumford, thinks that "Our logic is at fault in assigning God to the wrong end of the cosmic process. The universe does not issue out of God, in conformity with his fiat: it is rather God who in the long processes of time emerges from the universe, as the far-off event of

[87] Alexander, *op. cit.*, Vol. II, p. 347.

creation and the ultimate realization of the person toward which creation seems to move. God exists, not at the beginning, but at the end."[88] It is wrong, then, to say that God is "before all the worlds." God is the unfinished pinnacle that may ultimately crown the world's development. Or, to vary the simile, we may encounter him at the end of the 'emergent' road.

There were time-philosophers in India too, who identified the Absolute with Time and attributed to it the characteristics of change and lastingness. Listing various views of reality, Gaudapada says that, according to the time-philosophers (*kala-vid*), reality is Time.[89] In the *Svetasvatara,* the theory which considers Time to be the world-cause is mentioned and refuted. Those who teach that Time is the cause of world-evolution are characterized as deluded men.[90] And it is declared as against this view that he by whom the entire world is eternally enveloped is of the nature of consciousness, the Time of time (*kala-kalah*), endowed with qualities, and all-knowing.[91]

The theists of all times and traditions—except those moderns who take a democratic

[88] *Op. cit.*, p. 71.

[89] See *Gauḍapāda: A Study in Early Advaita*, p. 124.

[90] vi, i: kālam tathā 'nye parimuhyamānāh.

[91] vi, 2.

view of God and make him 'one of the eaches'—place the Deity beyond time. Theism has been defined as "the doctrine that the universe owes its existence and its continuance in existence to the reason and will of a self-existent Being, who is infinitely powerful, wise and good." The conception of a Creator-God seems to be essential to all theism. And, God is said to create not only the world but also time along with it.[92]

Probably, it is the anxiety to save God from time that makes some types of theism, such as the Nyaya, push God outside man and the universe. God belongs to the class of *atman* (self); he is *paramatman* (the supreme self) as distinct from the *jivatman* (individual soul). He is omnipresent and eternal, like other selves. But while consciousness and related attributes are his constant characteristics, they are not of the individual souls. His knowledge is eternal, complete and perfect. He desires and wills, but does not experience pain or pleasure. He is unsmitten by evil and free from hate. The God of the Naiyayika is primarily a creator and moral governor. His creation, however, does not consist in producing the world *de novo* out of elements not already existing. The primary atoms, etc., out of which the world is made are co-eternal with God. What

[92] See *Śvetāśvatara*, vi, 3.

God does is to introduce proper dispositions into them so that they may combine and give rise to the things of the world. He is the unmoved mover of the universe. He is "possessed of that combination of volition, desire to act, and knowledge of the proper means which sets in motion all other causes," but is himself "set in motion by none." God not only creates the world, but also projects it and destroys it in order to re-create it. In his work of creation, he is moved by no sense of partiality and exercises no arbitrary fiat. The guiding factor in the process of creation is the *karma* of individual souls. God acts out of compassion for the individual souls, even as the father acts for his children; his sole purpose is to see that his creatures evolve spiritually.

One special feature about the Nyaya conception of God is that it is sought to be established through rational proofs. Udayana in his *Nyaya-kusumanjali* sets forth these arguments for the existence of God: (1) The world is an effect, and so must have an efficient cause among other causes. Because of its variety, vastness and orderliness, the world cannot be traced to the work of a finite agent. The efficient cause of the world must be equal to the task of producing it by possessing infinite knowledge and power. Such an omniscient and omnipotent being is God.

(2) The world is not a disordered heap of things thrown together by chance. It reveals patterns which are the results of conscious design. Just as a work of art implies an artist, so the physical order of the world implies an intelligent designer who is God. (3) As in the physical world, so in the moral world there is order. Human happiness and misery are determined by antecedent causes. Happiness is due to merit (*punya*), and misery is consequent on demerit (*papa*). Merit and demerit constitute what is called *adrishta* (unseen potency): and it is this that is responsible for the variety of experiences that life undergoes. But *adrishta* is a blind force and requires the guidance of an intelligent director. The direction cannot come from time, for time too is an unconscious principle. The guidance must proceed from God. Besides these positive proofs, Udayana advances also a negative argument. The antigodists demand of the theists that they should prove the existence of God. But have they disproved God or established by proof his non-existence? No one has succeeded so far in showing through *pramanas* that God does not exist.

In order to free God from getting caught in the time-process, the Naiyayika makes him external to the world. But that attempt

unfortunately ends in limiting God. In spite of ascribing omnipotence to God, God cannot be all-powerful, because he is conditioned in his work of creation by the material he has to work with and by the rule of *adrishta* which he has to conform to. All the arguments that the Naiyayika advances for the existence of God can only establish a skilled worker, more intelligent may be than the ordinary mortals, but nevertheless limited in knowledge and power. The Naiyayika God can at best be a Big Brother or a Merciful Father to man, and not the self-existent and self-complete reality which is the God of genuine theism.

There is a suggestion in Nyaya that the world is the body of God. If this had been worked out in detail, the conception of God would have been quite different in that system. In Ramanuja's philosophy we have the soul-body relation as between God and the world fully developed, and a theism which is more satisfactory than the one which assigns efficient causality alone to God. The relation between God on the one hand and the world of matter (*acit*) and souls (*cit*) on the other is analogous, according to Visishtadvaita, to that between soul (*saririn*) and body (*sarira*). Isvara is cid-acid-visishta, an organic unity including matter and spirits. "The doctrine of the organic relationship of soul and body", says Professor Srinivasachari,

"is the *sine qua non* of Ramanuja's system."[93] The body, as defined by Ramanuja, is that which the soul supports, controls and uses for its own ends. The world of matter and souls which is the body of God is created and sustained by him and is made to subserve his purposes. It is the absolute dependence of matter and souls on God that is indicated by the soul-body relation. If the jiva is Isvara's inner body, the world is his outer body. They stand in an attributive relation. They are the attributes (*viseshana*) and he is the substance (*viseshya*); they are the modes (*prakara*) and he is the basic reality (*prakarin*); they are the parts (*amsa*) and he is the whole (*amsin*). The souls and matter are, no doubt, substances considered by themselves. In relation to God, however, they are attributes. Between them and God there is the relation of 'inseparability' (*aprithak-siddhi*). This is an internal relation which means that though the relata are different, they are not separate. Brahman, then, is a complex unity, not excluding internal differentiation.

Being (*sat*), consciousness (*cit*), and bliss (*ananda*) are the qualities of Brahman. Ramanuja's Brahman is not *nirguna* (attri-

[93] P. N. Srinivasachari, *Ramanuja's Idea of the Finite Self* (Longmans, Green and Co., Ltd., Madras, 1928), p. 52.

buteless); it is *nirguna* only in the sense that it is free from despicable qualities (*heya guna*). Far from being void of qualities, the Lord has an infinite number of noble and unsurpassed auspicious qualities. He is the Creator of the universe, the efficient as well as the material cause. He is immanent in the world as also transcendent. He is the inner ruler of the souls, and their goal as well.

Every conception of God, from the most crude to the most refined, has its definite and valuable place in the gradual evolution of the spirit in man. But if one hopes that any of those conceptions could be metaphysically sound, one is bound to get disappointed. It is not possible to have a conception of God without introducing relation, and to introduce relations is to make God part of the time-stream. The worshipper-worshipped relation sublimates, it is true, all other relation. It attenuates the worshipper's ego and makes him as if nothing before the magnificence of his Maker. The direction of the mind in worship towards God makes it one-pointed and holy and prepares the way for its dissolution in its cause. Thus the necessity of worship and its great utility are not disputed. But to insist that in the ultimate reality there should be difference and that souls and matter are eternal with God, though

not external to him, is not proper because it sets limits to the Ultimate and thereby makes it relative.

How can one worship a God, it is asked, who is under a sentence of death? If God is an appearance and not reality, if the worshipper-worshipped relation is not real but illusory, how is worship possible? Knowingly, can any one surrender to an illusion? Our reply to this criticism of Advaita would be : when the time comes for executing the sentence there would be no executioner to execute it, with the result that God is perfectly safe. But joking apart, it is not God that is illusory, according to Advaita. It is God alone that is real. Because the term 'God' is generally used in a relational sense, we would rather use the other term 'Absolute'. It is in the Absolute that the relational God disappears, and along with him the devotee. This dissolution in the Absolute is a consummation which should be devoulty wished for, for the Absolute is not an alien spirit, but is our true Self. In fact, according to Advaita, it is not a question of dissolution either. Brahman-realization is not a moment in time. It is the realization of one's eternal nature. Only from our side, which is the order of time, it seems to be, and is spoken of as, an occurrence.

IX

Reality, in the view of Advaita, is truly timeless—timeless not in the sense of endless duration, but in the sense of eternity and completeness, requiring neither a 'before' nor an 'after'. The best way to indicate the nature of Brahman, the timeless reality, is *via negativa* as 'not this, not this'. The *Brihadaranyaka Upanishad* declares that there is no other and more appropriate description of Brahman.[94] Commenting on this passage, Sankara observes: "How through these two terms, 'Not this, not this', is it sought to describe the Truth of truth? By the elimination of all differences due to limiting adjuncts, the words refer to something that has no distinguishing mark such as name, or form, or action, or heterogeneity, or species, or qualities. Words denote things through one or other of these. But Brahman has none of these distinguishing marks. Hence It cannot be described as, 'It is such and such,' as we can describe a cow by saying, 'There moves a white cow with horns.' Brahman is described by means of name, form and action superimposed on It, in such terms as, 'Knowledge, Bliss, Brahman,' and 'Pure Intelligence,' 'Brahman' and 'Atman.' When, however, we wish to describe Its true nature,

[94] II, iii, 6.

free from all differences due to limiting adjuncts, then it is an utter impossibility. Then there is only one way left, viz., to describe It as 'Not this, not this,' by eliminating all possible specifications of It that one may know of."[95]

There are, to be sure, affirmative descriptions of Brahman in the Upanishads. But they are to be understood in a symbolic sense, and not literally. It is thus that such descriptions as 'the Truth of truth' or 'the Real of the real' (*satyasya satyam*), and 'Consciousness, bliss, is Brahman' (*vijnanam anandam brahma*) should be interpreted. The formula sac-cid-ananda condenses, as it were, all that can be asserted about the nature of Brahman. A well-known *Taittiriya* text defines Brahman as being, consciousness and infinitude (*satyam jnanam anantam brahma*).[96] These three are value concepts, and not mere existential categories. The term 'being' (*satyam*) means that which is unchanging, that which time can neither cancel nor alter. The word 'consciousness' (*jnanam*) indicates transcendence of the subject-object relation. The real is not a knower as distinct from the object known

[95] See The *Bṛhadāraṇyaka Upaniṣad* with Śaṅkara's Commentary translated by Swami Madhavananda. Advaita Ashrama, Mayavati, 1934, pp. 344-5.

[96] II, i, 1.

and the process of knowing. Since it is not composed of parts, it admits of no division. It is knowledge *per se*. The expression 'infinitude' (*anantam*) connotes what is 'endless'; and 'endless' here means 'timeless.' Brahman is timeless in the sense that it is not conditioned by time, is the ground of time, and is unsurpassably subtle.[97] To such a reality we apply the value-concept 'bliss' (*anandam*). The very fact that we aspire for 'being, consciousness and bliss' shows that these are the highest values in our estimation, and are supremely real.[98] Value and reality coincide in Brahman, which is the final value as well as ultimate reality.

All affirmations about the Absolute, as I have said, use symbolic language. The normal use of our language is for describing 'facts', 'things', 'objects', such as the instance cited by Sankara, "There moves a white cow with horns." But Brahman is not a fact, thing or object. Hence the words that are employed with reference to it cannot bear their literal meanings. To point out the crescent moon in the sky, for instance, one

97 Śaṅkara's Commentary.

98 See B. Bosanquet, *The Meeting of Extremes in Contemporary Philosophy* (Macmillan and Co., Ltd., London, 1921), p. 67: "The instinctive appetite or demand for God ... is a proof of the reality of Deity, in the same sort of sense in which hunger is a proof of the existence of food ..."

may say, "Look at that branch of the yonder tree! Two inches beyond that branch is the crescent moon."[99] These words are useful only in enabling us to see the crescent and identify it. "Two inches beyond" do not convey their normal meaning in this context. Similarly all concepts and words employed with reference to Brahman have only a symbolic function. Some of them are more adequate for the purpose, the others less. "The relation between the symbol and symbolizandum is not that of resemblance," says W. T. Stace, "but that of greater or less *nearness* to the full self-realization of God. Certainly 'near' and 'far' are metaphors, but it is easy to interpret them. In the scale of being, one level is nearer to God's self-realization than a second if between it and that full self-realization there intervene fewer levels of being than between the second and that full self-realization." Illustrating his point, Stace goes on to observe, "Thus it is truer to say that God is a mind or a person than that He is a force. For the word force refers primarily to such existences as gravitation, cohesion, and the like, which belong to the lowest order of beings, those furthest away from the divine self-realization."[100]

[99] This is known as *śākhā-candra-nyāya*.

[100] *Time and Eternity* (Princeton University, 1952), p. 98.

Employing Vedantic terminology, we may say that to define Brahman as 'being, consciousness, bliss' is more adequate than to define it as the cause of the world. The former is known as the essential definition of Brahman, and the latter as the definition *per accidens*. To define Brahman as the cause of the origination, sustentation, and destruction of the universe has no purport of its own. Its only purpose is to lead us nearer to Brahman so that we may conceive of its essential nature as 'being, consciousness, bliss.' Even these expressions, it must be remembered, have but a symbolic meaning. The three terms should not be understood as indicating three different characteristics of Brahman. The Absolute is not being *and* consciousness *and* bliss. The three words are different symbols for one and the same symbolizandum. The major texts of the Upanishads such as 'That thou art' and 'I am Brahman' are even more adequate than the expressions we have so far considered. For the truth that is sought to be conveyed here is the non-duality of Spirit which is divisionless and relationless. If the literal meanings of the words 'that' and 'thou', or 'I' and 'Brahman' are construed, we shall only land ourselves in disaster; for 'that' cannot be 'thou', and 'I' cannot be 'Brahman.' Each pair of words should be understood to mean symbolically or secondarily (*laksh-*

anaya) the ultimate Spirit which is non-dual. More than signifying meanings, what such symbols have to and are intended to do, is to evoke the experience. It is with reference to the degree of facility with which they evoke the plenary experience that the symbols are judged to be more or less adequate.

When this principle is applied to the subject of ascesis, it will be seen that every type of spiritual discipline has its place and value. In a Sàmskrit verse, the different grades of worship and meditation are mentioned as follows:

prathamā pratimā-pūjā
japastotrāṇi madhyamā
uttamā mānasī-pūjā
so'ham pūjottamottamā.

"Idol worship[101] is the first; muttering of *mantras* and chanting of hymns are the middling; higher is mental worship; and the highest is the worship of the form 'I am He'."

Self-realization or the realization of the Absolute is man's final goal (*parama-purushartha*). This is commonly referred to as *moksha*, spiritual freedom. It is not a *new* acquisition, but is the regaining of what is the eternal nature of the soul. Sankara charac-

[101] W. T. Stace, *op. cit.*, p. 100: "Idolatry is thus not to be thought of as wholly false religion, the work of the devil, but as an evolutionary level of religion in which only the most inadequate symbols are applied to the divine."

terizes it as *nitya* (eternal) and *asadhya* (not what is accomplished).[102] *Moksha* is the very nature of Brahman.[103] We can only envisage it as a state of peace and bliss, where untroubled and imperturbable calm prevails.

Brahman-realization may be compared to aesthetic enjoyment. In both, time comes to a stop, distinctions and divisions vanish. But while in the latter we have only a glimpse of perfection, in the former the ideal is reached once and for all. The poet, for example, receives 'shocks' from the eternal during moments of the highest poetic experience. During such moments, time stands still and serves as an image and symbol of eternity. But the poet does not stay there for ever; he is drawn back again into the stream of time.

Vaughan celebrates an experience of the eternal in these lines :

> I saw Eternity the other night,
> Like a great ring of pure and endless light,
> All calm, as it was bright;
> And round beneath it, Time in hours, days, years,
> Driven by the spheres
> Like a vast shadow moved; in which the world
> And all her train were hurled.

The poet, here, plots his experience on the time-line, and remembers it as a past event.

[102] *Sūtra-Bhāṣya,* Mem. Edn. Vol. I, p. 21. Also p. 24: na mokṣah utpādyah.

[103] *Ibid.*, p. 24: brahma-svarūpa eva mokṣah.

Also, he recalls that experience of eternity, not as pure and unsmitten by finitude, but as under-shadowed by time.

Another poet, T. S. Eliot, imagines that

> "To apprehend
> The point of intersection of the timeless
> With time is an occupation for the saint."

This is how, I think, the saint's experience appears to the poet. The order of time and the order of eternity meet at a point and then part company. The experience of the saint and the sage, however, is of eternity as including and transcending time, in a word, as timelessness. With reference to the image of the intersection of the natural order by the divine order, W. T. Stace says that the moment of intersection is internally eternal, but externally a moment in time. We can agree that to us who are still in the order of time, the divine experience appears to be a moment in time. But we cannot endorse his view that "Looked at from the outside—as it is seen, not only by all of us in our normal consciousness, but by the mystic himself when he has passed out of it into the time-order, and looks back upon it in memory—looked at thus externally it is a moment in time."[104] The *mukta* (released soul)—even this expression is meaningful only to us—is never more thrown into the tract of time. For him there

[104] *Op. cit.*, p. 76.

is no return to the time-order. In the words of Sankara, the state of release is of one consistency, because it is Brahman itself.[105]

Moksha is not what is to be experienced in a different place or at a future time. It is right here and now. One realizes it the moment *avidya* (nescience) is removed through *vidya* (knowledge). As the *Kathopanishad* puts it, "When all desires dwelling in the heart vanish, then a man becomes immortal; and (even) here attains Brahman."[106] This is known as *jivanmukti*, liberation while yet living. We, who are on the hitherside, look upon the *jivanmukta* as an individual continuing to inhabit a body, and seek to explain this phenomenon by saying that his body will continue to live as long as the unspent portion of his *prarabdha*[107] lasts, and that he will attain *videhamukti* (liberation from the body) at the end of his life, when *prarabdha* will have spent its force. But this is not the truth. In the *Aparokshanubhuti*, a work ascribed to Sankara, it is stated that there is no *prarabdha* for the *mukta*. "After the knowledge of Truth has

[105] *Sūtra-Bhāṣya*, Mem. Edn. Vol. 3, p. 759: muktyavasthā hi sarva-vedānteṣv-ekarūpaiva avadhāryate, brahmaiva hi muktyavasthā.

[106] II, iii, 14.

[107] The portion of the past *karma* which is responsible for the present body.

arisen, there is no *prarabdha* at all, because the body, etc. are unreal, even as there can be no dream after waking."[108] There are no grades in *mukti,* nor varieties thereof. Sri Ramana Maharshi declares, "If it be said that the release one may attain is threefold, as with form, without form, and with and without form, we say that release is the destruction of (the triad) 'with form', 'without form', and 'with and without form', and of the distinguishing ego."[109]

Only if the ego persisted could we say that the *mukta* is an individual. But there is no ego in *moksha.* If it is right to describe *moksha* as the ideal for individuals, it is equally right to regard it as the goal for society. That is why some teachers of Advaita advocate the doctrine of *sarva-mukti* (universal salvation). Appayya Dikshita, for example, maintains that when an individual is released, he attains identity with Isvara, and not with Brahman. It is only when all jivas are released that the final identity with Brahman is realized. This is just like, when a particular mirror is destroyed, the reflection of the face that was in it lapses into the reflecting face, and not into the face-in-itself. This latter could happen only when all the mirrors are destroyed and there is no further possibi-

[108] Verse 91.

[109] *Ulladu Nārpadu,* verse 40.

lity of the face being mirrored. However difficult this conception may be, it has a lesson for us. All of us are one in, and as, Brahman.[110] So long as we are guided by a separatist outlook, we do not progress towards perfection. Our good lies in the good of all. The contrast of 'self' and 'other' has no meaning for Reality. It is the need for helping every being along the road to the final goal that Sankara stresses when he says that sages like Apantaratamas, Bhrigu, and Narada work for the welfare of the world, even after death.[111] The ideal of service to the world (*loka-sangraha*) is clearly set forth in the *Bhagavad-gita*. When Narendranath, who later became Swami Vivekananda, asked his Master Srí Ramakrishna, to bless him so that he might remain in unending samadhi, the latter is reported to have rebuked him saying, "How can you ask such things? I thought you were a vast receptacle of life, and here you wish to stay absorbed in personal joy like an ordinary man; . . . . This realization will become so natural to you, thanks to the Mother, that in your normal state you will realize the Unique Divinity of all beings; you will do great things in the world; you will bring spiritual consciousness

[110] Sankara uses the expression '*sarvātmabhāva*' as a synonym for mokṣa. See *Sūtra-Bhāṣya*, I, i, 4.

[111] *Sūtra-Bhāṣya*, III, iii, 32.

to men, and assuage the misery of the humble and the poor." Later, Swami Vivekananda proclaimed his faith to the world in these words: "The only God in whom I believe, is the sum total of all souls, and above all I believe in my God the wicked, my God the miserable, my God the poor of all races . . ." In the *Tantravartika*, the following statement is attributed to the Buddha: "All those sins of the world, let them fall on me; let the world be saved."[112]

X

It has been urged by critics of Hinduism that the goal taught therein is "the salvation of the individual soul in its solitariness," that Hindu thought has no idea of a cosmic community, and that it has never formed the conception of a universal history.[113]

I have already shown how the conception of *moksha* has nothing individualistic about it, and how the necessity for rendering service to the world is emphasized in Indian thought, orthodox as well as unorthodox. Scores of texts could be quoted to prove that, according to the great minds of India, the entire world is to be treated as one family

[112] Kumārila's *Tantravārtika,* I, ii, 1: kali-kaluṣakṛtāni yāni loke mayi nipatantu vimucyatām hi lokaḥ.

[113] See A. G. Hogg, *The Christian Message to the Hindu,* S.C.M. Press, London (1947), p. 46.

(*vasudhaiva kutumbakam*). The purpose of history is the cosmic realization of the eternal perfection. The object of the *avataras* is precisely this, that by their advent the world-process as a whole is accelerated in its advance towards the goal. God as the Time-Spirit incarnates himself from age to age in order to further the cause of goodness, and to keep disruptive forces in check. With each *avatara* or divine descent, the world is helped to move a stage further in the ascent to God. That seems to be the implication of the ten *avataras* from the fish, the tortoise and the boar, through man-lion, the dwarf Vamana, and the sturdy Parasurama, to Rama, Balarama, Krishna, and the future Kalki. The number of descents is not limited to these. Whenever there is the need, God incarnates himself. He takes on the form that is appropriate for the age. Though essentially unborn and immutable and the lord of all beings, though eternal, ever pure and of the nature of consciousness and freedom, God appears as if endowed with body and as if born, in order to save the world by his grace.[114]

It is remarkable that in an age when the rest of the world had made little history, the

[114] See Śaṅkara's Commentary on the Gītā, Mem. Edn., Vol. II, p. 2. dehavān iva jāta iva ca lokānugraham kurvan lakṣyate.

seers of India could imagine long stretches of time, extending over millions of years. The theory of the four ages (*catur-yuga*) does not mean that the time-process is cyclical, but rather that it is like a spiral. Nor does it mean that the four *yugas* should necessarily succeed one another. All the ages are all the time there. And, the progress of the world implies that *kali, dvapara,* and *treta* should, to a greater and greater extent, get sublimated in *krita-yuga. Krita* in the terminology of the game of dice is the highest throw which includes all the others. *Krita-yuga,* also called *satya-yuga,* thus means the whole-age, of which the others are but parts and distortions. It is towards this age that the entire creation is moving. It is the age of Truth, Peace, and Harmony. "I think that the world is moving towards peace, i.e., *Ahimsa.* The way of violence has been tried for ages and has been found wanting." Thus wrote Mahatma Gandhi, declaring his faith in cosmic progress. He had also the vision to see that India has a major contribution to make towards world-welfare, and led her through the gates of freedom by the novel strategy of peace and love. "I do believe", he said, "that if India has patience enough to go through the fire of suffering, and to resist any unlawful encroachment upon its own civilization which, imperfect though it un-

doubtedly is, has hitherto stood the ravages of time, she can make a lasting contribution to the peace and solid progress of the world." Now that India has, under the guidance of the Mahatma, passed through the fire of suffering, the stage is set for her to march along the road to world-perfection. She has a primary part to play in the great cosmic drama of Time whose sole purpose is to unveil the face of Eternity, to usher in the *satya-yuga.*

Space, Time and Brahman

Umesh Chandra Bhattacharya

The problem of time and eternity does not appear to have attracted the same degree of attention in Indian thought as in Western philosophy. In some of the recent philosophies of the west, the problem of space and time in general and of time in particular has acquired a distinctive significance. Among the Indian systems, the Vaiśeṣika looks upon space and time as ultimate and objective realities. They are real objectively in the same sense and in the same manner as earth, water, fire, and air (*Vaiśeṣika-sūtra,* 1.1.5). In a corresponding *sūtra*, the Nyāya enumerates space among the elements (*Nyāya-sūtra*, 1.1.13). Time is not included in this list ; but in view of the close relation that admittedly existed between the two systems, the view of the Vaiśeṣika in this matter was obviously the view of the Nyāya also.[1]

We are here taking space for आकाश and time for काल. So far as काल is concerned, there can be no doubt that it means time.

The view that the Nyāya-Vaiśeṣika puts forward about the nature of space and time is after all the ordinary man's view. The man of common sense regards the world as in space and in time. And according to this way of thinking, space and time are more real and more fundamental than anything else. The Nyāya-Vaiśeṣika also affirms that space and time are substances (द्रव्य). And, so far as earth or air etc. are also substances, they belong to the same category (पदार्थ) as space and time. Yet it is obvious to common sense that earth, water or air exist in and occupy

1 Cf. Annambhaṭṭa's *Tarka-saṁgraha* (3).

space, and all changes belonging to them constitute a succession in time; and in that sense and to that extent, they are in space and in time. There is one substance, e.g., the soul, which strictly speaking, does not exist in space; but even it lives in time.

For common sense, therefore, the world is in space and time. Space contains the extended material things. And the changes that take place in the world constitute a temporal series. In space, the elements of the world co-exist; in time, we have a succession-series. This is how the world constitutes a spatio-temporal series.

But this idea of space and time as vacant containers which are filled by contents from outside, into the constitution of which they do not enter, is open to serious objection. We cannot really think of matter away from its space-quality or extendedness. Space as empty container, therefore, is at best an abstraction. In the same way, time as empty possibility of succession is also an abstraction.

The difficulty of conceiving space and time as objectively real and at the same time different from the contents of the world led Kant and his followers to hold that both space and time are only subjectively real.

They are forms of perception – forms which the mind supplied from within. The thing-in-themselves as they existed outside the mind, we did not and could not know. But when they acted on the mind and the mind came in contact with them, the mind perceived them as here and now or there? Then, space and time, according to this way of thinking, are quite different from what popular thought takes them to be.

As distinguished from these two views about time and space, we have in Bergson and Alexander a third and profoundly interesting view. With them space and time are not otherwise empty containers, which are filled by things and events into the constitution of which they do not enter. Nor are they more subjective forms of knowledge. They are real objectively and what is more, they are the essence of other existences.

With Bergson, time is a force—a force that creates and

transforms. It is the stuff things – even minds – are made of. We ordinarily think that there is an ego which has the psychic states.

"But, as regards the psychical life unfolding beneath the symbols which conceal it, we readily perceive that time is just the stuff it is made of."[2] And properly understood, material objects also will be found to be made of the same stuff. "The world the mathematician deals with is a world that dios and is reborn at every instant, the world which Descartes was thinking of when he spoke of continued creation."[3]

But how does the Vedānta view space-time? In the *Vedānta-Syamantaka* of Radhādāmodara (*vide* my Edition, published by the Punjab Sanskrit Book Depot, Lahore, p.29.), we have a brief statement of what professedly is the Vaiṣṇava-Vedānta position with regard to Time. Time, we are told, is all powerful; it regulates the course of the world; and it existed even before creation. But nevertheless it in its turn is regulated and controlled by Brahma. Nothing is said here about space. And the account must be regarded as very scanty and elementary.

In the *Gītā* which is oftener than not regarded as a Vedānta book, we find expressions like 'time, the killer of the world' (xi. 32). But these expressions, which, again, have been differently interpreted, cannot be taken as the basis of a philosophical theory of time.

If we turn to the Vedānta texts, however, or the *Śrutis* of the *Upaniṣads*, we meet with attempts at constructing a philosophical theory on the subject. But the relation stated there to exist between Brahma on the one hand and space and time on the other is far from quite clear and definite. With regard to time, we have texts like *Bṛhadāraṇyaka* i.2.1, i.4.1., *Chāndogya* vi. 2.1., & c., which speak of Brahman as existing in the beginning (अग्रे), i.e., before creation. Literally speaking, this is equivalent to saying

2 *Creative Evolution*, Mitchell's trans., p. 4.

3 *Ibid.*, p. 23.

that He existed in time. Such passages abound in the *Upaniṣads,* that Brahma was the beginning—the alpha of things; that He existed before the world and would continue to exist even after it is dissolved, is the leading idea about Brahma. Obviously by ascribing temporal priority to Brahma, the Upaniṣadic thinker places both Brahma and the world in a chronological chain of which Brahma is at one end and the world at the other. And we have no clear reason to think that in passages like the above, the idea was to ascribe to Brahma only logical priority and not chronological priority in relation to the world.

But what about time ? Time does not appear to be accounted for in any way. None of the *Śrutis* on which the Vedāntic theory of creation is based make any direct reference to it. It does not appear to have struck the Vedāntist as any serious problem at all. On the contrary, the conception of an endless and beginningless cycle of worlds, seems to imply that Time was regarded as uncreated and fundamental like the finite soul. Further, the statement that Brahma existed before the world, would also suggest the same conclusion.

Time certainly is not subjective for the Vedāntist. It is real beyond the mind. The question that we have to face, therefore, is: What exactly is the relation between time and the world on the one hand and time and Brahma on the other?

That the world is in time is apparent from the stages indicated of its unfolding. The essence of time is succession and sequence. The world is a process from stage to stage, from space to air, from air to fire, and so on. And this is a succession and must be in time. Besides, not being eternal but created, the world comes into existence at a point of time. Because Brahma precedes the world, creation is an event in time. And whatever has a beginning has an end also; and so the world comes to an end—again an event in time—to be renewed at a later time. The creation, the destruction and the renewal of the world, as also its existence, this whole series is temporal.

Alongside of this, we may consider the migration of the finite soul. Until it attains final emancipation, the soul migrates from

body to body. Each birth and each death that it experiences is an event in time. The sould had no beginning, it is uncreated. But its experiences are all in time. Like the world-process, this series of experiences of the finite self also had no beginning : but unlike the world-series, it may come to an end, if emancipation is attained. When a finite soul is liberated, it is no longer in the temporal world. The nature of its existence after liberation from the bondage of this existence, is a question on which the different schools of Vedānta are divided. But on one thing they seem to have all agreed, *viz.*, that in the condition of liberation or *mukti,* the soul is beyond the vicissitudes of this temporal world.

Now, whether any individual finite soul continues to be in this world or not, the world as such does not stop; there are other souls to be affected by it. The finite world and the finite selves in it thus live, move and have their being in time. But what about Brahma? Is he also in time? The epithets usually applied to him would suggest that he is not. According to the school of Śaṁkara, no doubt, he has no attributes. But so far as qualities can be ascribed to him, he is always and by all Vedāntists described as eternal (नित्य). And he is changeless, though the changing world is caused by him; and even though he is the ground and the matrial (उपादानकारण) of the universe, he does not suffer any change, Now, a being that is changeless and eternal cannot be in time. The essence of time is change and succession.

What, then, becomes of the *Śrutis* which speak of Brahma as preceding the world? Precedence is a time-relation. If Brahma precedes the world and brings it into existence at a point of time, how can he be above time and eternal?

The word 'eternal' and its corresponding words in other languages also, are employed in various senses.[4] Sometimes, 'eternal' means existing for an unending extent of time; and sometimes it means timeless or above time. It is also used to

4 Cf. Pringle-Pattison, *The Idea of God,* p.343.

mean transcending time, yet somehow including it. In which of these sense, can Brahma be regarded as eternal (or नित्य), if he is eternal at all?

Some texts of the *Upaniṣads* and some Vedāntist writers also would draw a distinction between two aspects of Brahma. Brahma as self-subsisting, and Brahma as the cause of the world. So for as Brahma himself is concerned, he is supposed to be deviod of all limitations and also incapable of change and alteration. And as such he is above time and eternal: But as originator of the world, Brahma places himself at the further end of the time-series which is the world. Now, how far this bisection of the Brahma-idea is possible and how far this is justified by the *Śruti* texts themselves, is a matter of dispute among scholars. But we may note one thing in this theory, *viz.*, an attempt to reconcile the eternal character of Brahma with the temporal nature of the world around us. So understood, Brahma would appear to be eternal in the third sense of the term as indicated above. Brahma would then be above time and yet would somehow be including in it himself. This somehow would no doubt be a great mystery. And it was perhaps, among other cause, a recognition of this element of mystery in the relation between Brahma and the finite world that led to the theory of Inscrutable Difference-non-diffirence (अचिन्त्य भैदाभेद).

But whether such a distinction between the twofold character of Brahma and eventually a distinction between Brahma and the world is admissible or not is itself a question. According to the extreme wing Vedāntists who refuse to admit any ultimate difference between Brahma and the world, the only conclusion that is logically possible is the denial of the reality of the world of time and space. *Māyā* or illusion would then account for both time and space and also of the rest of the world. In that case, Brahma would be simply timeless.

But the fact of the world cannot be dismissed with ease. Besides, the conception of the soul's migration (संसार) is there. This presses upon the mind the need for recognizing time as a fact. And so far as Brahma as the sole cause of the world sustains this beginningless time-series, he must be conceived as existing

for all time; i.e., he is eternal in the sense that he is existing for a boundless extent of time.

The Vedãnta has not made any definite choice regarding the sence in which Brahma is eternal. With regard to space, the Vedãntist's position is clearly and unambiguously enunciated in the *Sũtras*. Not so with regard to Time. The conclusion to which, however, the Vedãnta tends may briefly be indicated as follows.

Brahma is above time and space. Space is created by him and has the degree of reality that belongs to other created things. It forms the substratum of the physical world. It enters into the composition of all other material things according to the principle of quintuple combination. The gross elements, space, air, fire, water and earth, are but compounds containing one-half corresponding pure (subtle) element, another half being made up of one-eighth fraction of each of the other (pure) elements. That is, one unit of gross space is equal to one-half of pure space plus one-eighth of pure air plus one-eighth of pure fire, plus one-eighth of pure water and one-eighth of pure earth. The same is true of each one of the other gross elements also. This is called quintuple combination (पंचीकरण) because, in the compositon of each element, all the five elements enter. And, as all things are but modification of these five elements, all these elements are found in each one of them. Necessarily, space also enters into the constitution of each one of them, barring of course the spiritual things.

But time does not enter into the composition of these elements or of any other thing of the world. On the contrary, the whole world of which space is an ingredient is a process in time. And the temporal order of the world with space as an ingredient in it is in Brahma. Brahma transcends time and yet somehow includes it.

We do not pause to criticise this position. But there is one thing which may be noted in passing. If the Vedãnta does not give a quite satisfactory and up-to-date account of time, it was perhaps due to the fact that, unlike space which was an element (भूत) and, therefore, a substance in character, time was regarded as un-substantial. Whatever its real nature may have been, the

fact that it was not believed to enter into the composition of physical things nor did it affect the existence of Brahma, would incline one to think that it was either subjective or illusory. But for this conclusion also we have no definite warrant.

In Bergson, time is the very stuff of which the world is made. It is also the force that makes the world. And in Alexander, time with its body, space, is the whole of reality in its beginning; we say in its beginning, because reality is not static; it grows and grows from less to more. Both according to Bergson and Alexander, new forms and new qualities are emerging out of the original reality. But what about a God, or highest spititual reality? That, according to Alexander is yet to come. "Deity is a nisus and not an accomplishment."[5]

According to the Vedānta, Brahma is not only the first but also the highest reality. According to Alexander, the first and ultimate reality is space-time, out of which eventually the quality of deity will emerge. For the Vedānta, Brahma is the beginning and the end of the world, its Alpha and its Omega. But according to Alexander, Brahma, if that a name could stand for the highest reality, would only be the unattained end of the world—its Omega, but not its beginning which was only space-time. Brahma may eventually emerge out of this original space-time, but he was yet to emerge. For the Vedānta, however, Brahma is all; he subsumes space and time. He alone is really real. The rest is his attribute or his creation and cannot claim a prior reality.

5 *Loc. cit.*, Vol. II, p.364.

The Problem of Time in Indian Thought

Umesh Chandra Bhattacharya

The problem of time is as important as it is ancient. Very early in philosophy we find the human occupied with the question of the relation between the changing and the changeless – the perennial question of becoming and being. Since the emergence of the problem in Greek thought, we find it appearing again and again in some form or other in physics as well as in philosophy, until we come to quite recent times when, thanks to Bergson, Alexander and Einstein, it has acquired a new significance and a fresh importance. Time and change are involved in each other. We cannot think of change without time and the essence of time is succession. Perhaps we can think of time without phenomena, as Kant contended, but after all it is an abstration. In any case the idea of change and that of time are closely associated. And hence the temporal and the changing have always meant the same thing. That which is in time, is subject ot change.

On the contrary, the unchanging is what is beyond the reach of the ravages of time. The unchanging and the eternal are the same. The contradiction between the changing and the changeless thus implies the contradiction between the temporal and the eternal. And that in its turn leads us to the opposition between the Becoming and the Being. May we not add to this another pair of opposites, viz., Appearance and Reality? That which appears, is in time and is, therefore, subject to change; the real is beyond time, eternal, and is therefore unchanging. It is obvious that these ideas have occupied very important place in philosophy since its very dawn.

In the philosophy of Plato—and as a matter of fact in ancient philosophy throughout—time is considered less real than eternity.

And it would not be altogether wrong if we said that the tendency is rather to regard time as unreal. Degrees of reality may be an inadmissible conception. In that case, time is unquestionably unreal; but if reality may be conceived as less and more, then time is undoubtedly less real than eternity. The temporal order is an appearance — the changing is passing and unstable. And Reality is the changeless and the eternal; it is Being, while Becoming is only a passing show.

The difficulties which such a view of time has involved are well known. To decry time is not to solve the problem of time. What appears may not be ultimately real, but how to account for it? Is time real? Or, is it pure illusion? And what after all is the eternal? Is it not only what lasts for all time? If so, then the eternal is not timeless and eternity is only unending time, but after all, time. Is Plato's eternal order of things, therefore, a negation of time or an affirmation of all-time? — a beginningless and ceaseless flow of time?

Kant gives a new turn to the problem of time. Time is only a form of intention. The things-in-themselves are not in time, though we have to think of them as in time. The fact of time is recognised, only time is now purely subjective, having no objective reality.

Since Kant, time has either been conceived as an a *priori* condition of knowledge or, as common sense would rather have it, as an objective possiblity of change and motion.

But in recent thought, the time-idea has undergone interesting modifications. For Bergson, time is the stuff of which reality is made. Time is not only not unreal, but is reality itself. It is a force that creates. Succession, we are told, is an deniable fact. And "if I want to mix a glass of sugar and water, must willy-nilly, wait until the sugar metls. This little fact is big with meaning. For here the time I have to wait . . . is an absolute. What else can this mean than that the glass of water, the sugar and the process of the sugar's melting in the water are abstractions, and that the whole within which they have been cut out by my senses and understanding progresses, it may be in the manner of a consciousness?"[1]

Again, "if succession, in so far as distinct from mere juxtaposition, has no real efficacy, if time is not a kind of force, why does the universe unfold its successive states with a velocity which, in regard to my consciousness, is a veritable absolute?"[2]

All this implies an idea of time very much different from the ancient idea.

In Alexander also we find equally interesting idea of Time. With him Time is the soul of space, and space-time is the soul of all reality.

As to Einstein's theory of relativity and its effect on our time-idea, we may just quote a paragraph from Wildon Carr's exposition of it:

> The principle of relativity declares that there is no absolute magnitude, that there exists nothing whatever which can claim to be great or small its own nature, also there is no absolute duration, nothing whatever which in its own nature is short or long. I co-ordinate my universe from my own stand-point of rest in a system of reference in relation to which all else is moving... Space & Time are not containers, nor are they contents, they are variants.[3]

Space forbids us to enter into a fuller exposition of these new theories of time. But it is obvious that all these imply a concept of time radically different from what has hitherto prevailed in philosophy. Now that the time-concept has acquired this new importance, may we not turn to the ancient heritage of Hindu thought and see what it has had to offer regarding this problem?

About space, Indian thought offers two distinct views—One is that space was created, the other is that it is uncreated. In the *Vedānta-Sūtras*, ii. 3.1 et seq., the doctrine is definitely laid down

1. *Creative Evolution*, p.10.
2. *Ibid.*, p. 358.
3. *The Principle of Relativity*, by H. Wildon Carr, p.190.

that space was created and that it was created at a particular stage in the process of creation. But against this doctrine, we have the view of the Nyāya-Vaiśeṣika school that space is a *dravya* and is thus ultimate.

But what about time? The account given of time is somewhat wavering. Common sense had its own view about time as about space; and some of the systems also give a clear and definite theory about time. But still, as in Europe so in India, time has offered difficulties which could not be so easily overcome. And hence about time we find more diverse views than about space.

Time is a more difficult and complicated idea than space. We can think of a space-less reality, such as a soul. But can we think of any existence without time – or, as Bergson would put it, without duration? A time-reference is more inevitable in our thinking than a space-reference. Besides, the fact of change cannot be accounted for by space. Time alone can explain it. Whether ultimate or not, change is a fact. And change and time are correlated ideas. This also adds to the difficulty of any clear definition of the time-idea.

Popularly, in Indian thought, time, for which the word *kāla* is the usual name, has been variously described. In the *Gītā,* X. 30, we are told that God was himself the time (*kāla*) that is used in reckoning; and in X.33, He is identified with the changeless time (*akṣaya-kāla*). One is time that is measured, and the other is absolute time. And again, in XI.31, time which is identified with God, is spoken of as the destroyer of things (*lokakṣayakṛt*). Commentators would not take these passages as a theory of time but would rather take the time or *kāla* in its half mythological and half mystical sense of a power and a deity. Yet the way in which time or *kāla* is spoken of in other places as well leaves little doubt as to the fact that all these statements presupposed a more or less definite theory of time. In the *Māhābhārata* itself there are scores of passages where some such theory is advanced. Thus : in V.32.24, time is spoken of as a cause of things ; VI.14.60 also speaks of time as a determinant, as a cause of things ; and

in VII.78.6, time is described as the foree that rules and regulates all things.

In XII.25.5, *et seq.*, we have a long discourse on omnipotence of time, which reads like a passage from Bergson.

"Man owes everything to time. Nothing happens out of its turn, but everything in its time. Time determines the course of things. Time brings fast winds and time again is the cause of rain. Time makes flowers to bloom. The phases of the moon – the full and new moon – are all determined by time. Rivers do not flow more swiftly than their allotted time. The Sun does not rise before its time, nor does it set after its time."

In XII.139.49, *et seq.*, we have a lecture on time in a similar strain, viz., that time is responsible for man's birth and death, his sorrows and sufferings as well as his enjoyment and happiness. Similar thought is expressed in numerous other places also.

In XII.274, we have what is apparently a philosophical discourse. There, too, time is spoken of as an element which, along with the five well-known elements of earth, water, etc., constitutes the material cause of the world. The passage is somewhat obscure but the recognition of the elemental character of time is clear.

In III.312.118, time is described as the great consumer of all things. The same idea is repeated in XII.321.92 (*bhūtāni kālaḥ pacati*, etc.) and also in XI.2. and XVII.1.3, etc.

In these and plenty of other passages, the theory of time advanced seems to be that it is a force—a driving power—a kind of necessity — which determines the flow of thing. And that it is not controlled by any power beyond it; because there is no power above and beyond it.

But in V.58.12-13, a passage which has been approvingly quoted in some of the Vaiṣṇava writings, specially of Bengal, we have a statement that the wheel of time is controlled by God of the Universe. Time is not an independent reality; it is under the direction of God. But still it is a force that determines the events of the world, and not a mere form of perception.

A consideration of these views leads us to the conclusion that the prevailing popular view about time was that it was a potent agent – a kind of necessity – that made each event of the universe appear in its proper place in the series, and the sequence of things was determined by it either independently or under the guidance of God.

In the *Purāṇas*, time or *kāla* is also identified with God of destruction. That time destroys all temporal things — all things that have a beginning — is a common experience. It is no wonder, then, that it was regarded as a force that brought about the end of things and that the end of things was a necessity that could not be evaded.

Can we brush aside these views as mere mythology ? or as mere figures of speech? There is a tendency to think that the *Purāṇas* including the *Māhabhārata* are full of mythological and allegorical statements. Without entering into the merits of this view, we may remind ourselves that these very books were regarded as the expression of sober truth by many men; and that texts of the *Māhābhārata* – specially the *Gitā* – have been taken in their literal sense and have been referred to as an authority by no less a person than the author of the *Vedānta-sūtras*. This fact stands in the way of our summary rejection of the views about time that have found expression in the *Mahābhārata*. And if we accept them as an expresion of sober beliefs, we cannot but conclude that in India time was regarded by many as a force, just as it is regarded by Bergson today.

This conclusion finds some collateral support in the doctrine of *karma*. *Karma* also is a kind of blind necessity that determines the course of a man's life. Apart from the question of free-will, which did not assume in India the proportions it did in the west, and even assuming that *karma* was originally a free act of the agent, yet it cannot be denied that according to the leading opinions, *karma* once done was a necessity that must work itself out ; it was a force that must spend itself out in consequences; it may be neutralised or given a new direction by a contrary force; it may even be consumed – reduced to ashes, so to say, (cf. *Gītā*,

iv.38) by knowledge. But until this is done, it is a force that works, and works with a relentless necessity.

It is no wonder, then, that a series of parallel observations led the Indian mind to view time also as a force. Death occurs when death is due and a flower blooms only in its proper time. The course of events has a regularity – an order, which cannot escape notice. What determines this order – this clock-like regularity? Each thing happens in its time. Time, therefore, determines every happening.

A popular view there was that time was a force. How was time, accounted for in the systems? Nyāya-Vaiśeṣika regards time like Space, as one of the *dhavyas* and as such ultimate. How does Vadānta account for it? In the chapter on creation (*Vedānta-sūtra*, ii.3), we have space accounted for as created, and the order of creation also is fully discussed. But nothing is said of time. Of course, when we remember the general position of Vedānta that Brahma is the sole cause of the world and when we further remember that the world is viewed as in space and time, we may conclude in a general way that time, like space, also owes its origin to Brahma. But, however logical such a conclusion might appear at first sight, it cannot be so easily reconciled with other aspects of the Vedāntic position.

In the first place, there is the order of creation. If the order is not logical—and there is indication to think that it was logical — clearly it is a temporal order. And if creation is a process in time, time is beyond creation and is uncreated. Secondly, there are the passages in the *Śruti* (e.g. *Bṛhadāraṇyaka Upaniṣad, i.4.1*, etc.) which speak of the existence of Brahma before creation. Now, before and after imply time; Brahma, therefore, in so far as he was existing before creation, and created the world at a point of time, was himself in time.

Add to this conception of eternity, Brahma is universally described as eternal or *nitya*. Now, what is the meaning of *nitya*? We have a categorical statement of Rāmānuja that *nitya* means existing for all time (*sarva-kāla-varttitvaṃ hi nityatvam* under I.1.1). Can we really doubt in the face of these facts that the Vedāntist

understood eternity as all-time? If so, was not time an ultimate reality? And if this view of time be accepted as correct, what becomes of the absolute monism of Śaṁkara and his school? Brahma has a second in so far as there is time which is not himself. Or shall we take time as identical with Brahma? In that case, we sink back into the *Purāṇic* conception of time.

It will perhaps be admitted that the Vedāntist view – or, rather the absence of any view in Vedānta – of time is not quite satisfactory. But to the ordinary man and the religious mind, the ravages of time appeared as quite real and time, with or without a god to guide it, was considered to be a potency-a force-a necessity that ruled the fate of things. That the processes of the world were determined by time, was clearly recognised. The evanescence of individual life and its joys and sorrows, the fickleness of the 'boast of heraldry' and the 'pomp of power' led the Indian mind quite clearly to realise that the "paths of glory lead but to the grave". The temporal character of the world was perceived; and with it was also perceived the destructiveness of time. This in itself, however, does not give any comprehensive account of time and its relation with the world. Admitting in a general way that time is a determining condition of the world, its relation with the world may be understood in either of two ways.

We can think of time as in the world and also we can think of the world as in time. The two do not mean the same thing : they are alternative views, though according to both, time determines the world. According to the first view, the finite mind alone has to think of the world in time, but strictly speaking it is not in time. According to the other view, even the finite mind, the world, whatever its importance in it may be, time is not real beyond the world of phenomena and hence we have to think of the creator of the world as himself above time, yet imparting to the world its temporal character. But it, on the other hand, time is believed to be real beyond the world of phenomena—if it determines the world processes from outside and the world is in time, —then we can hardly avoid thinking of it as an ultimate reality; and of God as living in time. That appears to be the view

of the Vedānta. Brahma is *nitya* in the sense that he pervades all time — but still he is in time. Indian thought does not appear to have gone beyond this point.

Again, taking time as a real, Indian thought has emphasised ever and on the fact of its destructiveness. It has often been described as a force but a force that kills. That time not only makes the present past but also ushers in the future — not only destroys things that are but also brings new things into existence, does not appear to have impressed the Indian mind. Time not only destroys but also creates. But Indian thought seldom recognised this creativeness of time. It was left for the genius of Bergson to discover it. Perhaps the fuller view of time is that it destroys in order to create and creates in order to destroy.

Notion of Time in Hindu Philosophy

Sukumar Ranjan Das

"What is time? A mystery, a figment but all powerful! It conditions the exterior world, it is motion married to and minglĂde with the existence of bodies in space, and with the motion of these. Would there then be no time if there were no motion? No motion if no time? Is time a function of space or space of time? Or are they identical?" Such must have been the train of thoughts that passed through the mind of early thinkers when they set upon pondering over the notion and function of time.

Thus the earliest expression of human mind on the notion of time is a vague pronouncement on the all-powerful character of time. "Time drives as a horse with seven reins, thousand eyed, unaging, possessing much seed. The wheels are all beings. He brought the beings together and duly encompasses them. Being the father, he becomes the son of them all. Than his, verily, there is no other brilliance that is higher. Time generated yonder sky, time also these earths. What is and what is to be stands out sent forth by time. From time came into being the waters. By time the Sun rises; in time he goes to rest again; time generated of old what is and what is to be."[1] Such vague expressions did, no doubt, lead to more consistent and rational deliberations on the notion of time. The later Hindu philosophers maintained *kāla* (time) as an independently existing Force and they gave the following reasoning:

"All perceptible things are perceived as moving, changing,

1. *Atharva-Veda, Sûktas,* XIX, 53-54.

coming into existence and passing out of it. They are produced and destroyed. There must be some force or power which thus brings them into existence and moves them all. The things themselves cannot do it. There must, therefore, be something which makes this movement, organisation and destruction of things possible. It is this something, this power or force, which is *kāla*. As it moves and changes things it gives rise to in the percepient the notions, with regard to those things, of past, present and future, of old and new.[2] That is to say, it produces all those relations which are termed as temporal and is in this sense only time. It must be conceived as a Reality.[3] Because it cannot be shown to be dependent for its existence upon anything, rather it is upon *kāla* (time) that all moving and discrete things depend, in so far as they have movements and change. It must be also a reality which pervades the whole universe, that is to say, has relations with all things that are moving and changing. In fact, it is a reality which relates things together in regard to their movements and changes, and thus enables a percepient to speak of somethings as old, and of others as young, with reference to one another. Thus *kāla* (time) is a reality which holds together the sensible universe as it ever moves on in well-regulated and seasoned cycles, and yet maintains that positional order which, for ever, obtains between its various members." [4]

The Hindu philosophers further proceeded to argue that infinite Time is a non-entity if objectively considered, being only a coustruction of the understanding *(buddhi-nirmāṇa)* based on the relation of antecedence and sequence, in which the members of the phenomenal series are intuited to stand to one another. These phenomenal changes as intuited by us in the empirical consciousness

2. *Vaiśeṣika-sūtra, Upaskāra & Vṛtti*, II. ii. 6; *Nyāya-vārtika*, II. i. 36: *aparasminn aparaṃ yugapat ciraṃ kṣipram iti kālaliṅgāni.*

3. *Vaiśeṣika-sūtra*, II, 7: *dravyatvanityatve vāyunā vyākhyāte.*

4. Prasastapāda, p. 22.

fall into a series which the understanding conceives as order in time. "The Time-series, then", says Sir B.N.Seal, "is a schema of the understanding for representing the course of evolution. The scheme of the understanding supervenes on the phenomenal world as order in Time, and hence in the empirical consciousness the Time-series appears to have an objective reality and to form a continuun. As there is an ultimate and irreducible unit of extensive quantity (*parimāṇa*) in the *Guṇas* or infinitesimal Reals of *Prakṛti,* which are without constituent parts, so the moment may be conceived as the ultimate and irreducible unit of this Time-continuum as represented in the empirical consciousness." A moment, therefore, cannot be thought of as containing any parts standing in the relation of antecedence and sequence. If change is represented by the time-series, a moment as the unit of time may be supposed to represent the unit of change. Now all physical change may be reduced to the motion of atoms in space, and we may, therefore, define the moment as representing the ultimate unit of such change, viz., the (instantaneous) transit of an atom (or rather a *tanmātra*) from one point in space to the next succeeding point. Even an atom has constituent parts (the *tanmātras*), and hence an atom must take more than one moment to change its position. The motion of that which is obsolutely simple and without parts from one point in space to the next must be instantaneous, and conceived as the absolute unit of change (and therefore of time or *kṣaṇa*). If this be held to be an irreducible absolute unit, it will follow that what we represent as the time-continuum is really discrete. The Nyāya-Vaiśeṣika philosophy asserts the existence of time (*kāla*) as extending from the past through the present to the endless futurity before us. Had there been no time we could have no knowledge of it and there would be nothing to account for our time-notions associated will all changes. The Sāṁkhya school did not admit the existence of any real time ; by it the unit of *kāla* is regarded as the time taken by an atom to traverse its unit of space. It has no existence apart from the atoms and their movements. The appearance of *kāla* as a separate entity is a creation of our *buddhi* (*buddhi-nirmāṇa*) as it represents the order or mode in which the *buddhi*

records its perceptions. But *kāla* in the Nyāya-Vaśieṣika philosophy is regarded as a substance existing by itself. In accordance with the changes of things it reveals itself as past, present and future.[5] The Sāṁkhya teachers regard time as past, present and future inasmuch as they are the modes of the constitution of the thing in its different manifesting stages of evolution (*adhvan*). The Indian astronomers regarded time as being due to the motion of the planets. These must all be contrasted with the Nyāya-Vaiśeṣika conception of *kāla* which is regarded as an all-pervading partless substance which appears as many in association with the changes related to it.[6] Time is of one dimension; two moments cannot co-exist; neither does any series of moments exist in reality. Order in time is nothing but the relation of antecedence and sequence, between the moment that is and the moment that went just before. But only one moment, the present exists. The future and the past have no meaning apart from potential and sublatent phonomena. One kind of transformation to whcih a thing is subject is that it changes from the potential to the actual, and from the actual to the sublatent. This, the Hindu thinkers called the change of mark (*lakṣaṇa-pariṇāma*) as opposed to the change of quality (*dharma-pariṇāma*) and the change due to duration or lapse of time (*avasthā-pariṇāma*). The present is the mark of actuality, the future the mark of potentiality, and the past the mark of sub-latency, in a phenomena. Only one single moment is actual and the whole universe evolves in the one single moment. The rest is but potential or sublatent.[7] Vijñānabhikṣu points out that this does not amount to a denial of time. It means that time has no real (or objective) existence apart from the moment. But the latter is real, being identical with the unit of change in phenomena (*guṇapariṇāmasya kṣaṇatva vacanāt*). But even this is real only for our empirical

5. *Nyāyakandalī*, pp. 64-66.

6. Nyāya-mañjarī, pp. 136-139.

7. Vide *Pātañjala-sūtra*, *pāda* 11, 52.

(relative) consciousness (*vyutthita-darśana*), which intuits the relation of antecedence and consequence into the evolving reals (*guṇas*), in the stage of 'empirical intuition' (*savicārā nirvikalpa-prajñā*). The intellectual intuition' (*nirvicārā nirvikalpa. prajñā*), on the other hand, apprehends the reals as they are, without the imported empirical relations of space, time and causality.[8]

The Jaina philosophy also held the same view regarding finite and infinite time, that is, time measurable and immeasurable. It maintains that time (*kāla*) in reality consists of those innumerable particles which never mix with one another, but which help the happening of the modification or accession of new qualities and the change of qualities of the atoms. time (*kāla*) does not bring about the changes of qualities, in things, but just as *ākāśa* (ether) helps interpretation and *dharma* (nature) motion, so also *kāla* (time) helps the action of the transformation of new qualities in things. Time perceived as moments, hours, days, etc. is called *samaya*. This is the appearance of the unchangeable *kāla* (time) in so many forms. *Kāla* (time) thus not only aids the modification of other things, but also allows its own modifications as moments, hours etc. It is thus a *dravya* (substance), and the moments, hours, etc. are its *paryāyas* (modifications). The unit of *samaya* is the time required by an atom to traverse a unit of space by a slow movement.[9]

In Buddhism, time is regarded as a subjective element. Time is the concept (*kālapaññatti*), by which first and foremost mental states are distinguished in internal intuition. It is the *sine qua non* of the succession of mental states.[10] The Buddhist philosophers looked upon time as only a concept derived from this or that phenomenon, such as (a) states expressed in such phrases as, 'temporal (aspect of) mind', 'temporal aspect of matter' ; (b) the

8. Sir B.N. seal, *Positive Sciences of the Ancient Hindus.*

9. *Dravyasaṃgrahavṛtti*, 19-20.

10. Vide *Abhidhammattha-saṅgaha.*

phenomenal occurrence expressed by such phrases as 'the past' and 'the future'; (c) the phenomenal succession in an organism expressed by 'the time of seed generation' and 'the time of sprouting'; (d) the characteristic marks of phenomena expressed by 'the time of genesis' and 'the time of decay'; (e) the functions of phenomena expressed by 'the time of feeling' and 'the time of cognizing'; (f) functions of being expressed by 'the time of bathing' and 'the time of drinking'; (g) the modes of postures expressed by 'the time of going' and 'the time of stopping'; (h) the revolution of the moon, Sun etc. expressed by morning, evening, day and night; or (i) the grouping of days and nights etc. into periods expressed by 'half-month', 'month' etc.[11] The Buddhist held that it should be understood that abstract time is a mere concept because it is not existing by its own noture. This is, in short, the notion of time in ancient Hindu philosophy which held that temporal characteristics are among the most fundamental in the objects of our experience and therefore cannot be defined properly.

11. *The Expositor (Aṭṭhasâlinî)*, Part II, *Analysis of Terms*, pp. 57-60.

Time and Mysticism

K.C. Varadachari

TIME is indeed one of the most important categories which had varying fortunes in the history of Philosophy. It is well-known that time walks at divers paces with divers persons. There is such a distinction as subjective time and objective time or subjective duration and objective times, or standard times which vary from place to place. But the Indian conception of time is that Time can be defined generally as having triple stages or successive moments such as the past, present and the future. It is irreversible though events may be cyclical. Time extends both sides up to infinity. And the secret of Time is its present tense according to some well-known thinkers not because of the other two being irrelevant but because the present has the consequence of the past within it and has the potency of the future within it. If we know the 'Now' then we know 'all' about the Time. But some thinkers hold that this approach to the problem of Time as successive triple moments connected closely with the concept of Negation (*abhāva*) is unsatisfactory as also the theory that time is but the divisions of the day or month or year into arbitrary 24 parts or 60 ghaṭikās and 60 minutes and seconds etc., till we come to the infinitesimal indivisible span of time (*truṭi*). This is spatialised Time say some thinkers.

Astronomical times are different from the temporal times and differ according to some arbitrarily chosen measuring rod, very valuable for close social work. Thus some hold that this kind of time is binding because it is socially regulated and adopted by all by convention and being a social contrivance and convenience an illusion or unreal

in the real sense of the term. Relatively it is infecting the concept of Time and therefore time itself is relative.

The whole problem of Time must be viewed not indeed in this manner but in terms of the larger standpoint of the ' ingression ' of the eternal in the temporal which is characterised by different grades of times or durations or measures (chandāṁsi). The subjective conception of Time as the process of becoming and not the arbitrary social (spatialised) time, is valuable. The speed of time is calculated by the vigour which attends upon the upward process. In matter the speed is reduced to a dull uniformity of repetition without any attendant variations, (*Tamas*). The speed of life is at a new tempo indeed very much different from the speed of matter the most attenuated or wavicle-form. Kāla thus is different in the level of the mind—which has become a classical metaphor of the highest speed—manojava. Higher levels of consciousness have higher speeds so that the succession is ultimately reduced so far as the lower level is concerned to simultaneity. Contraction of time or slowness occurs. Equally this entails the contraction of space or distinction between the intervals between two points. Thus the problem of time turns out to be the problem of space also, and the solution of the problem of Time is the solution of the problem of space. Ultimately this turns out to be the problem of energy, of consciousness or intelligence. The differing paces of movement are available in our own organism and there is multiplicity of motions each with its own unique pace and form which are harmonised by the interrelated laws (*ṛtas*) of the Highest Spirit, the Unmanifest Eternal directing and ordering the harmonious concord of the several planes.

Time thus is a mystery of the manifestation of the diversity extending from the most slow and spread out to the most speedy and concentrated movements. Their co-

existence needs explanation from the mystical stand-point. To say that time is but the activity of Māyā or the supreme delusive power of Spirit which simultaneously displays illusions to the individual and confuses him by interpenetrative confusion between fancies and fantasies, as the *Yoga-Vāśiṣṭha* explains, is to miss the truth which does not so much refer to consequences but only to the nature of this confusive possibility. The Mind is said to be the cause of all illusion—*mana eva manuṣyāṇām kāraṇam bandha-mokṣayoḥ*—. The meaning is that some times we pass into higher or lower speeds of time and therefore of space and levels of experience which are real but because of the non-adaptation they are delusively pleasurable and yet of temporary (not momentary) nature. Mind brings in speeds of instability just as desire brings in complications of imagination and wish-fulfilment. There is a great amount of speculation as to what should be the nature of Time prior to creation or even knowledge or, for the matter of that as to what is the nature of Space prior to matter being created. If we are asked to hold the view that matter is a creation, a new and original creation by God or Spirit, then there can be the notion of a timeless eternity. and a spaceless Vastness. The concept of ākāśa as the plenum within which we have the occurance of events or things (atoms or wavicles), defines the directions; and this verily is relative to the individual atoms or groups of atoms or events or things or individuals. If time is conceived in terms of motion or changes, then too we are wedded to relativity. But then the philosophical assumption of a timeless and spaceless or dateless existence as a rational need is unprovable. But if we could conceive of the other possibility that this is the state where everything is in quiescence of Peace, and it is precisely this state that in some parts of its being plunges into movement whilst retaining its own Peace in other parts (as the Sāṅ-

a fourth of the whole being involved an each state in modi-
khyans conceive of the evolution of their categories—only
fication), it is possible to explain the double experience of Time and the Timeless, Space and Spacelessness, Being and Becomingness, Transcendence and immanence. The unceasing continuity of time or event neither refers to the same individual nor to all or the whole, nor the other alternative of unperturbed stillness of everything or each thing—a position that might involve us in assumptions of illusion of process and progress. Time and Space then are integral to our experience and if we mean to transcend Time and Space it means something that is other than their abolition. It is this meaning that is granted by the mystical consciousness of unceasing devotion to the highest values of Truth and Eternal Being or the Divine Personality—the Ultimate Summum Bonum or the Good which is followed under all conditions and at all stages of individual growth. This devotion is the pursuit of the Divine with an one—pointedness and absorption of devotion born out of the knowledge of absolute selfness of the Divine out of whom flows all values and all reality. Space and Time are limitations to the ignorant and the pursuer of the little things of the body and pleasure. The transcendence over space and time means just the setting aside of all limitations as interferences to the worship of the Divine, attainment of the Divine. The transcendent love (*parā-bhakti*) knows no limitation, and recognizes none, not only of space and time and circumstance but of birth or caste or class, status or livelihood, life or death. The philosophical transcendence is a mirage considered in the context of the transcendence that is attained by the mystic. Time and Space become however significant, and not the abstract abode of events or the evolution-co-ordinates as Professor Alexander held.

Once then we have found that so far as mystical cons-

ciousness is concerned its set of values do not reject space or Time or the Ākāśa which is the plenum (Matter in one of its primal forms—bhūtas, which plays a very important role in the yoga psychology as the abode and indeed itself *nāda*—sound in all its fourfold forms of *parā. paśyantī*, *madhyamā* and *vaikharī*)—but utilises these conditions and processes for the manifestation of the Divine Excellences (*līlā*) (or possibilities).

The unreality of these is not the condition for this liberty of spiritual askesis. spiritual discovery of values, spiritual realisation and evolution; on the other hand, we are made aware of the implicit sets of processes that every state of devotion, knowledge, and action, implies.

Thus when it is said that the primary secret of spiritual life consists in the will to practice dependence on the Highest alone and none other, and not what many think a will to defy every condition including the deity—one of the greatest truths of eternal life has been uttered.

Time, said Sri Aurobindo, is one of the factors in the ascent of spiritual life: (Synthesis of Yoga) This is because the pace and the time of fulfilment or ripeness for the opening of the inner life are not governed by the individual's consciousness at all but by the Grace of the Divine. This is the view of all those who have been treading the path and though the elapse of time may be slow according to the individual's reckoning.

Recently I reviewed a journal entitled "*The Wind and the Rain*" in which there was an article entitled "The Indian Time-Table," by Mr. Willy Haas.* I shall mention the general thesis of that author. The Indian Time-table is not like the European Time-table which is again different from the American Time-table. He holds that

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* **Prof. Haas considers that Time can be classified into Historical, unhistorical and ahistorical.**

the European Time-table or the conception of History is one continuous stream of life, which has gathered all the rich heredity and culture of the past and is proceeding towards the future. Thus the present is a consequence of the past, a child of the past, conserving the traditions and heredity of the same, The American New World Time is a free movement unconditioned by the ancient history of Europe and its cultural and racial movements, starting a new epoch, save to the extent that the early settlers had carried with them and what the new settlers are carrying with them into that country. But the general movement is to preserve the moral righteousness of the past of their late country, from which they had fled as refugees so to speak rather than the traditions of the other kind, which repelled them. A new pace for civilization was rendered possible by denying the outer heredity and conditions for the sake of an eternal principle of individual freedom and free society. A new conception of progress—a revolutionary speed was rendered possible by this abandonment of the past scenes and figures. Perhaps the American Time is the actualisation of the Bergson's conception of Time as duration impelled from behind by the triple aspirations of liberty, individuality and religion. This is mystical and ahistorical as compared with the European Time which is purely historical. The severance with the historical time of Europe, from its tradition and heredity was the higher purpose of mystical time. The withdrawal however was never complete and there is a return of the American to Europe for whatever reason it is not necessary to enquire just now.

The Indian Time-table is different from the historical European Time, though it has an historical Time of its own—the meta-biological theory of Avatārs. It has also presumably an ahistorical Time—though this ahistorical Time is more Vedantic, Absolutistic. It has in addition

an unhistorical Time revealed in its primitive beliefs in transmigration. After all India is a conglomerate or amalgam of cultures of all strata of evolution from the most primitive to the modern educated savant, in the Western sense of the term. Time accordingly walks at different paces. The different paces of Time however are not widely separated or demarcated but there is an inexorable tendency to mix and mingle with each other making life unpredictable. Time is not relativised but interfused, and confusion is the result. Accordingly the future of India is unpredictable.

I have just stated briefly in my own words his general Thesis. But it is necessary to enquire further. He says that the Indian Time-Table is equivalent to the unhistorical theory of transmigration, pseudo historical Avatāra doctrine, and the mystic ahistorical Time.

Transmigration is the view which holds that life after death has a tendency to take up forms of life which may be of any order, human, animal or even plant. The law of Karma inexorably controls the kind of body that we are to take. If our deeds are human we take up a human body, otherwise we are attracted to and attain to other types of bodies. The movement of the soul from one type of body to another involves, or course, the belief in the existence of souls, life after death, and belief in the principle that disposes our future according to deserts. The belief in transmigration is common to all primitive races. India also believes in it, perhaps the difference is that the primitive believes without any reasons whereas the Hindu has a principle or hypothesis which explains the belief. But Prof. Haas considers that this belief is not held but persisted in and that surely is a recessive dynamism. Totemic worship and taboo and superstition have been proved by Sigmund Freud to be phenomena of the subliminal and the unconscious and the irrational elements

which, evolutionarily considered, have occured earlier. To retain belief in them and to act according to those beliefs is a regressive (if not pathological) phenomenon.

But have the moderners been able to shake off this regressive movement? The superstition in the transmigration has been sacrificed at the cost of letting loose the whole pandora's box of furies. Men need not take another body to be brutes; they have become brutes.

It was according to an ancient Saw that Gotama, the Buddha, made a profound remark that men become what they worship or love. Worshipping and eating derive their meaning from the root $\sqrt{}$ bhuñj in Sanskrit. And on another occasion he made the remark that those who eat meat will become the abodes of the animals whose meat they eat. The ancient superstition of transmigration and the fear of transmigrating into lower forms of life prevented them from descending down the grade of life. This worthy restraint has been given up. There is a supreme wisdom concealed in the doctrine of transmigration when taken along with the doctrine of karma. Love of life and seeking to lift life to higher levels of being are implicit in this doctrine. The individual soul does not change its individuality as Prof. Haas thinks but only its sheaths or personality in the course of its transmigration. It is undoubtedly a point to insist that the individual has not the memory of his past life and therefore the doctrine of transmigration—both forwards or backwards—is refuted. But then are we certain that there is no biological memory, instinctive memory in the animals and ourselves. The Indian Yogī holds that it is possible to know the past lives fully and know the whole history of the spirit. Perhaps it is incredible to us. But so many things are incredible—have always been.

The second important element of the Indian Time table considered by Prof. Haas is the theory of reincarna-

tion. The soul incarnates constantly till it is finally released. Incarnation is the corrolary to samsāra. Freedom from reincarnation or *punarāvṛtti* is one of the aims if not the only aim of our life. Jñāna alone can lead to the transcendence over samsāra or crossing over samsāra or death. When this is the case and the Hindus believe in this possibility, it is surprising to hear from Prof. Haas that it is an element that explains the regressive movement of Indian Time. But what he is attacking is not this but the Reincarnation of God or Avatāra doctrine. Every Hindu knows that the avatāra is a descent of God rather than an ascent of man. The ten avatāras of God in popular reckoning, are Matsya, Kūrma, Varāha, Narasimha, Vāmana, Paraśu Rāma, Kodanda Rāma, Halāyudha Rāma, Kṛṣṇa and Kalki. There has been the inclusion of Buddha laterly. Some ingenious writers immediately equated this with the biological evolution or ascent of Man made popular in the 19th century and after. This metabiological view is unacceptable, for, though it can be conceded that the descent of God or the Highest spirit in any form will raise the form to a higher level of Consciousness yet it will not be right to say that it is the evolution of the Deity that we are witnessing. In the Purāṇas the purpose and meaning of the Avatāra is for the restoration of Dharma in and to the plane—an act of Grace.

It is His beneficent willingness to take any kind of Form—which is in that order the perfect expression of His Sovereignty and Puissance, Virility and Transcendence, Beauty and Light—for the protection of His creatures. Nor is the view that some avatāras exist at the same time as others capable of being refuted, for it is this supreme possibility that is seen in the Divine. The Divine Lord may project himself fully or partially, in His form as Avatāra—Descending Divine, and for ever in some for certain definite Cosmic purpose or act in multiple person-

alities also. This is the secret of the *amśa-avatāras*. This view can only be understood if we understand the general theory of the *Pañcarātra* which teaches the four-fold nature of the Divine—the Para—transcendent—Vāsudeva—Nārāyaṇa: the vyūhas (emanates) of Vāsudeva—Saṁkarṣaṇa—Pradyumna—Aniruddha. The Avatāras which are not limited to any number are also called the Vibhava (glory—grace forms); the Arcā (the idols in the temples—spots of Transcendent light to which any sincere seeker can go directly and offer himself or herself or seek refuge) and last but not least the Antaryāmin—the form of the Self within the Guru and Beloved, a descent of the Divine Form or Light in the heart of the Mystics, Āḷvārs, Dāsars and Nāyamārs.

All these forms are important and must be fully known. They are the Forms of the Divine who makes us participate in the Divine Life both inside and outside, who grants liberation from samsāra and ignorance, and service of the eternal Truth and light.

Being unaware of this structure of the mystical, Prof. Haas finds inconsistencies in the Avatāra-doctrine. He sees in it every view except the right one. The meta-biology of the avatāras is a western invention. The mystical is a personal view of reality and not an impersonal view. It is how the soul seeks and finds its highest truth and Self.

The ahistorical view may be that of the Mysticism of Identity. But identity is not always the poise of Spirit. Unity pervades and manifests multiplicit and gives meaning to them; so also multiplicity and difference reveal the richness of the unity and identity. Both are faces of mysticism. Mysticism reveals that the Divine must be embraced or sought after not from any one part of being or portion of experience but by all parts of one's being, the physical, mental, vital and supramental. All sheathes of

organic existence should subserve the Divine, must be suffused with the Divine Light and truth, must ultimately be transformed by the same Ānanda. So long as any portion of the organic existence or soul is left untouched by or unopened to the influx of the Divine, there will be conflict, disease, mortality. The Divine either has all or has nothing to do with a soul. All or none formula is true here, as elsewhere in Logic.

The ahistorical mystical view is more akin to what the late Nicolas Berdyeav, the renowned Russian Mystic—Christian Apologist, stated. Monism and mysticism are antithetical, he said. The reason is not far to seek. Being can only be experienced as personal, and the Ultimate is experienced as the personal ' more ' or in Tagore's phrase " surplus." Further he rightly remarked also that the descent of the Divine is a fundamental historical event not in the sense in which the world war II is a historical event or the birth of Communism even or the French Revolution or the October Revolution. Its historical nature is suprahistorical really because it sets a pace to the transformation of the relationship that man bears to the All, the Divine. In this sense the Advent of Christ Jesus and the Crucifixtion of the Son of Man transcend the ordinary historical. But this aspect is something foreign to Professor Haas's understanding. Every one of the Advents narrated in the Indian Purāṇas is a significant transcendence over the animal and the human, a new step made in History conceived as the History of Spirit—the Līlā* of the Divine, the most wonderful phenomenon of providence descending into the scheme of His creation to give meaning and direction and eternity to the temporal play of events and planes and personalities.

There is a sense in which we can hold that the identi-

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* *Līlā: liyam lātīti Līlā.*

ty-consciousness is fully transcendent to the temporal when it is a swoon into the infinite. Such a swoon is the desideratum according to some philosopher mystics, as the ecstacy is incomparable and irresistable and there is an actual impossibility of severance or return to the separative consciousness. It is this merging that is acclaimed highest by Advaita Vedānta. Some thinkers hold that without this inner coalescence and loss of individuality and personality there can be no real liberation. It may involve the total negation of the world and all creative process —niṣprapañcīkaraṇam so far as that soul is concerned. The abolition of Time is considered accordingly to be the business of the mystical or ahistorical consciousness.

But we are aware of another approach to the problem of Time in the Upaniṣads. The *Praśnopaniṣad* begins with an elucidation of this problem in a sense. The great sage of the *Atharvaṇa* Veda, Pippalāda speaks of the creation from Prajāpati in the following way. Prajāpati was at the beginning. He brought into being out of Himself Prāṇa and Rayi (souls and matter); Prāṇa is Sūrya and Rayi is Candramas. Then Ṛṣi Pippalāda states that Prajāpati is Samvatsara or Year. This Saṃvatsara has two ayanas the Uttarāyaṇa and the Dakṣiṇāyana. The former is Prāṇa, the latter is Rayi. So also Prajāpati is Māsa or month which consists of Śukla and Kṛṣṇa Pakṣas. The former is Prāṇa and the latter is Rayi. Then Prajāpati is said to be the Day which contains the day and the night, the former is prāṇa and the latter is rayi. He who would like to live the Mystic life, Brahmacarya, must not waste his prāṇa during the daytimes.*

The above shows that Time is conceived of in a triple form, the first is *daivika*, the second is of the *pitṛs*, and

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* Cf My article in New Indian Antiquary: *"Pañcarātra and the Upaniṣads"*.

the last is *mānava*. The person who understands the mystic unity of the transcendence of the Prajāpati and how He works in and through the two-fold energies or souls and Matter will find that immortality is open to him. The five nights (rātris) above stated, namely Rayi, Candramas, Dakṣiṇāyana, Kṛṣṇapakṣa, and Rātrī are of the downward path, the path that leads to disintegration and darkness and Ignorance. The contrary movement is that of the Ascent (or the Souls) in a sense. He who would know the mystic unity of these two in and through the Supreme is the Seer and Knower.

Some times it is difficult to gather the intention of these descriptions at all. But the illustration granted by the *Rāmāyaṇa* and the *Harivaṁśa* is extremely valuable. If we look at the birth of Rāma as described by Vāmīki we find that he is born of the (in the) Five Prāṇas or Day-times—Agni-Prāṇa, (Āditya), Sūrya-Vaṁśa, Uttarāyaṇa, Śuklapakṣa, and Midday (karkāṭaka lagna in Caitra); and so also we find that Śrī Kṛṣṇa was born of (in) five Nights: Devakī (Rayi) Candra-vaṁśa, Dakṣināyana, Kṛṣṇapakṣa, midnight. The supreme purpose of these two descents is to establish the kingdom of Truth and Dharma and abolition of unrighteousness and evil. The significance of these two avatāras must be found in two different phases of the mystical Consciousness. The Divine is always the Prāṇa. The descent into a lighted world is where the dharmas are very clear and determined and the people know them with clarity and Rāma Rājya prevailed. The interference with this dharma and rājya was punished and the ancient order was restored. Certainly it was the exploit of the Mahāvīra Rāma that we witness in his superhuman ability in slaying the ten-headed Rāvaṇa of great prowess. Śrī Rāma revealed that he could and would protect every one and no power on earth could prevent that.

In the case of Śrī Kṛṣṇa it was a period of great indeterminateness. Mankind was itself afflicted with unrighteousness. The Dvāpara was at its end. It was the beginning of the Kali-Night—the night among the yugas. The descent of Kṛṣṇa was the descent of the supremest Power which alone could plunge into inconscience anu perenneal darkness and in plunging illumine it at every level of its septi-planal darkness and above.

This Time-element in the Upaniṣad of the five Rātris or Five days is important in respect of man's own ascent and secret of holding on to the Divine Prāṇa in the darknesses or nights. This is expressed in the Viśiṣṭādvaita exposition as Pañcakāla vidhi—comprising *abhigamana*, *upādāna*, *ijyā*, *svādhyāya* and Yoga. The five times of the day are to be devoted to the worship of the Divine in all his five fold aspects as the Transcendent, Vyūha, Vibhava, Arcā and Antaryāmin. The way of worship through doing kaiṅkarya for God alone with one-pointed mind (*ekāyana*) is the way to preserve the Prāṇa in the rayi, the Soul within the body.

Thus the mystical division of Time into the two transcendent forms of Prāṇa and Sūrya (Āditya), and Rayi and Candramas; and the three temporal forms of Uttarāyaṇa, Śuklapakṣa, and Ahas, and Dakṣiṇāyana, Kṛṣṇapakṣa and Rātri reveals the significance which the Mystic Consciousness had always attached to the pravṛtti and nivṛtti paths as including and involving each other.

It can in this context also refer to the ṣaṭ-sthala doctrine of the Viaraśaiva theology. But it is not as clear. But the Pañcasamskāras and the five-symbols may have some reference to the five Nights. Manu indeed equate the Uttarāyaṇa with the day of devas, the Kṛṣṇapakṣa with the day of the Pitṛs though this is not the Upaniṣadic view. Obviously for Manu it was rather surprising that Śuklapakṣa should be granted to Āditya though the Moon it is who waxes.

Time and the Significance of Contradiction

J.N. Chubb

I.—Time.

[This article is a portion of my Thesis submitted for the M.A. degree of the Bombay University. In the Thesis I have maintained (*vs.* Bradley) that the Absolute is abstract and featureless and that the finite is as such an illusion, though in its essence it is one with the Absolute. Self-transcendence, I have shown, implies in a sense self-negation. The finite is not absorbed in 'something higher' but is identified with the highest reality, its distinction from it being negated as illusory. In this Paper I shall deal with Time and change as a form of appearance and shall show that as in the case of the finite appearance, the finite shedding its finitude turns out to be the infinite, likewise Time owing to its inconsistencies seeks to pass beyond itself as Time. Time is Eternity itself provided its temporal character is negated.]

The problem of Time is rightly regarded as the most fundamental, since it is the problem of experience itself. Change, movement and succession are the chief features of our experience. Our experience itself is fleeting, as well as of the fleeting, and since the truths of philosophy are got only by searching the contents of our experiences, the experience of change and its implicate time which is so constantly with us, will, as a result of analysis, reveal to us in what consists the ultimate truth of things. We can, however, say with Turner[1] that to ask what is time is equivalent to asking what is reality, only in the sense that reality is the truth of all finite existence including time, but as we shall see time *as such* is essentially the expression of a paradox that emerges when we attempt to make our experience of change explicit.

Time is distinguished from change, succession, movement, in short from all forms of activity, since all these presuppose time. Change is an event, but all events occur *in time.* Time may be relative to change, but is not change itself, since the latter presupposes time in which it occurs. But what is meant by saying that an object changes *in time* or that events occur *in time*? If time is not identical with change or succession, is it an empty receptacle in which these occur, a blank cinematographic screen on which the events of the world are focussed in rapid succession as they come into being and pass away? In other words, what is the relation of time to its events and what is meant by saying that events "occupy" time? The phrase 'occupying time' may suggest that time is an empty place, a vast background across which

1. *Direct Realism*, p. 232.

the procession of events passes and with which they have no further connection of an internal kind. The contents of a receptacle, however, can be taken out and placed elsewhere, but all events must necessarily fall within time and cannot be placed outside it. Time thus cannot be accidental to events which necessarily imply its existence. This implication is mutual, for if time is a necessary presupposition of events it must be closely bound up with events and cannot remain unaffected by them, unless indeed events are declared to be illusory, in which case time would cease, at least as time, and the need for postulating it in that particular form would not arise. Time is not accidental to events, nor are events accidental to time, but determine its nature and stamp it with their intimate character. Since change qualifies time and time in its turn is affected by change, the relation between the two would appear to be not merely that of container and contained but the more intimate one of the attribute of a substance to the substance itself. We may thus look upon time as a 'substance' in relation to its quality of changefulness, as the 'object' which is said to undergo change, the 'thing' underlying and possessing the procession of events which may be conceived as constituting its history. Change is the quality of time, time is the 'thing' qualified. This will become clear when we proceed to consider how the notion of time arises.

Time may be the necessary presupposition of all experience, but itself does not form part of, *i. e.*, is not given as an element in sensuous experience. Sense experience reveals to us change, events, occurrences, and these are thought to be not possible unless they be placed in a time that stretches beyond and envelops them. Whence arises the necessity for postulating such an all-inclusive existence called time? Of anything that occurs we say that it has begun in time and will end in time. Its occurrence is in the *present* time, there was a time (*i. e.*, the past) when it did not occur and there will be a time (*i. e.*, the future) when it will cease to occur. Thus in order that an event may occur we think it necessary that it should be enveloped on both sides in time, by a past in which it was not and a future in which it will cease to be.

An objection may be raised to this way of stating the case. Time, it may be said, is not postulated exactly in this way. There is the view of Broad that only the past and the present exist while the future is strictly non-existent. On this view, time does not envelop events on both sides. An event which is occurring in the present, no doubt, involves the existence of a past time in which it was not, but not the existence of future time when it will be no longer. There *is* a past in which the event was not, while

there *will be* a future in which it will cease. We can hence only say that when an event occurs it is placed in the present time and is related to a past time, but not, while it is actually occurring to a future time, for such a time does not exist.

This objection against the present reality of the future is hardly tenable, for it applies equally to the past. The past existed but no longer exists. Just as we cannot say that there *is* a future in which an event will cease, so also we cannot say that there *is* a past in which it was not. The past existed and the future will exist but neither of them exists now. But if both the past and the future are non-existent, while the event in question occurs, then it will be difficult to see in what sense the event can be placed in time at all. To be in time means to have some relation at least with the past, but we cannot relate an event to something which is non-existent. Besides the statement, the past existed and no longer exists, would mean no more than that the past existed *in the past*, and similarly the statement that the future does not yet exist would only mean that it will exist *in the future*. Thus if we are to assign a temporal position to an event, the past and the future would seem to be implied as *permanent* realities. This, however, brings us to the heart of the paradox of time. Here it is sufficient to point out that when an event is placed in time it is related equally to the future as to the past, between which two times no difference can be made in point of reality.

The question which we are now considering is, what is the need of postulating time in which events are said to occur? How does the notion of time arise? If change were pure change, *i.e.*, if a process of change could be analysed into a pure succession of events in which could be found no principle of permanence, then there would be no need for postulating time. We get the notion of time because we believe there is *duration* in change. If a changing process had nothing permanent in it, nothing that remained itself, then change would resolve itself into a bare succession, each phase in the successive series occupying no more than a moment of time. Where there is duration there is continuity, there is a 'filling' of time. But if nothing endures in a changing process, then its continuity is broken and nothing fills or spreads out in time, but breaks up into parts, each part shrinking within the compass of a point or instant of time. To occupy a moment of time is strictly not to occupy time at all, for a moment is an abstraction; it is the limit of time but does not itself form part of time, even as the point is the limit of a line and not a constituent portion of it. A change that is temporal is a change that is rooted in permanence, its relation to a permanent background alone

giving it a temporal characteristic.[1] To place events in time is simply to recognize the underlying identity in the changing process. Time is thus the permanent background to which change refers, the Identity in change, the 'thing' or 'substance' which changes.

An objection may be considered here. Time is not change since all change occurs in time. Similarly, it might be said, time is not the 'thing' or 'object' that changes, since we speak even of objects as being in time. Things begin and end in time and since they occupy but a portion of time they cannot be identified with it. If, however, our view is true, there is nothing which has an *absolute* beginning in time and which will in time *altogether* cease to be. Paradoxical as it may sound, to place anything in time is to make it immortal and in the end eternal. To say that an object is in time means no more than that it changes in time. Its changes in other words are in time but itself is not temporal in the sense that time does not envelop it. We have already seen that a change that is temporal is not bare succession but presupposes an underlying identity. This identity is the object which is neither in time nor out of time. It is not in time since it retains its identity, nor is it out of time since it changes and is affected by change. It is time itself. What is placed in time transcends time in the sense that it does not possess what is usually regarded as a temporal characteristic, namely evanescence or momentariness. Evanescence and momentariness are not strictly temporal qualities at all since a moment does not form part but is the lower limit of time. If time is continuous it contains no abrupt beginnings and endings. What is in time is stretched out in time and what occupies but a portion must occupy the whole of time and be co-extensive with it. For in time there is not only no abrupt beginning and ending but no beginning and ending at all, since these imply that the existence of a thing is enveloped on both sides by non-existence. But between existence and non-existence there is a gulf which can only be crossed by a sudden leap and not by any continuous process. There can be no temporal passage from existence to non-existence, since all movement in time is continuous and is not effected by leaps and bounds. What is temporal is for all time and all things in time are immortal.

It is difficult to see how else time can be understood except as the permanent in the changing. A change that is in time is simply a change that is included in a substratum in which it occurs and what is rooted in time is in other words *rooted in a permanent background.*

1. Usually time is regarded as the movement or passage of events. The assertion that an event is in time, means that it moves or passes on. This however cannot be true since 'passage' and 'movement' themselves presuppose some time in which they occur.

When we say that anything is in time we imply that there is a before and an after to it. Its present phase which is presented to us does not exhaust its nature but is continuous with earlier and later phases of itself. The time that stretches beyond an event is the event that stretches beyond itself as an event in the present. It is the object which is more than the phase which is revealed in perception and which we call the present. We shall dwell further on this point in the next section when dealing with causality. We shall see that time determination presupposes the category of causality and causality is nothing but the principle of permanence in change. Time, cause and substance are but three names for the underlying identity, presupposed, in the case of time and cause, by the self-alienation of change and in the case of substance, by the diversity of attributes.

Having established the conclusion, that time is 'that which changes' or the permanent in the changing I shall consider the main paradox of time which will indicate to us the attempt that time makes to transcend its own nature. I have regarded time as permanent because it is presupposed by change and what change presupposes cannot itself be said to change. But if time does not change what changes? We have seen that if the existence of change is as real as that of time it is not accidental to time, but enters into its nature and qualifies it. Since change is an attribute it presupposes something that changes, or in other words a changing substance and hence time which is qualified by change must be regarded as a changing time otherwise there would be nothing which could be said to change. Change if real, inheres in a changing object while at the same time postulating the permanence, relative to itself, of that in which it inheres. And this is the contradiction of change as well as of time. Bradley is right when he points out that change essentially demands a permanence in which succession occurs, but this demand is inconsistent and involves its background (in our view *time*) in inconsistencies. Since time embraces change it itself changes and hence its permanence is at best a changing permanence.—And this is a contradiction, which can only be overcome by time's transcendence of itself as time. The contradiction is sometimes brought out by saying that there are two times, a changing time and a changeless time. "If time flies, then it is in time that it flies, so we get the paradox of two times, one of which moves while the other is permanent and unchanging."[1] There is not however a duality of times but the same time that reveals two inconsistent characteristics of permanence and change. This is only another way of stating the paradox that only the permanent can

1. Gunn, *The Problem of Time*, p. 403.

change. A change requires something which changes and which yet remains permanent in the whole process of change. This is an obvious contradiction and time which attempts to maintain its identity in the self-alienation of change seeks both to keep its balance as well as to lose it and thus proclaims itself as an inconsistent appearance.

This contradiction of time is also brought out when we consider the relation of the present to the past or the future. The present is that which is occurring, the past is that which has ceased to occur and the future is that which has not yet occurred. It is sufficient to consider the relation of the present to the future for the same analysis applies in the case of its relation to the past. The future event which is not yet existing must be regarded as existing in some future time. But is the *future time* itself non-existent? Is its existence not yet a reality? And what else can this mean but that it will become a reality in another future time? This would give us a vicious infinite. If, however, we escape the infinite regress by saying that the future time is somehow existing, now, we shall have to regard the future event which is rooted in the future time as also actual in the present. We cannot get out of the contradiction by saying that the future exists in the present, but in a potential form, and that change simply consists in a passage from potentiality to a state of actuality. The term "potential" is a makeshift as will be clear when we consider Causality. Bradley rightly contends that "potential existence" is a compromise between existence and non-existence,[1] which simply re-states the problem of time but does not solve it. The actualisation of what is potential, if regarded as an event in the future gives rise to the same insoluble contradiction. The notion of time when sought to be made explicit lands us in a dilemma. The essence of time consists in a division into past, present and future and yet if these sections of time are strictly maintained, time converts itself into a paradox. If the past and the future are to be distinguished from the present, the distinction can only arise in point of existence. The present alone exists while the past exists no longer, and the future not yet. And yet there is a sense in which 'the past lingers in the present'. It has not sunk into unreality. It is somehow still there, though the notion of its persisting in the present is in no way intelligible. If time is the principle of change, *i. e.*, if it embraces change and does not remain unaffected by it, it must necessarily imply the reality of the distinctions of past, present, and future within itself. It loses its meaning without them and yet, as we saw, with these distinctions maintained, it fails to make its meaning intelligible and loses itself in a maze of contradic-

1. A. & R., p. 53.

tions. These contradictions remain so long as we do not transcend the level of time.

II.—Time and Causality

We have seen in what way the experience of change and time implies causality. To place anything *in time* is to link it necessarily with the past. This necessity is what we understand by the causal link. The full explanation or causality of a thing goes beyond itself. It is not felt to be a wholly new product, but is believed to have been in some sense anticipated in the past. Causality is not thus a bare succession of discrete phenomena. Every event as appearing in time is intelligible in the light of its own development in the past. The essence of causality consists in the assertion of *Identity* underlying all processes and in its denial of the emergence of the *wholly new* or of the non-existence of the effect prior to its origination. The crude realism of the Naiyāyikas was responsible for their theory that the effect arises as a new product altogether and is non-existent before it is actually produced (Asatkāryavāda).[1] On the *Naiyāyika* view we are unable to discern any causal link which binds together the different elements of our experience or any *necessity* underlying the objective succession of phenomena. If the effect is wholly new it is wholly different from the cause. As such we can only say that it succeeds the cause in time and not that it emerges as the result of a causal process. Causality is stultified in the Naiyāyika Universe. Since we cannot trace the history of an object before it emerges in our consciousness, it seems to be born through no necessity but in perfect contingency. There is no reason why it and not something else should have made its appearance in the world. We have no right to believe that things will happen according to our expectation but should live prepared to meet any contingency, to see an acorn grow into a palm-tree or to find that three sounds combine to produce "not a fourth sound but a star".[2]

But there cannot be a temporal succession without causality. This is obvious if time, as I have contended in the last section, is regarded as the principle of permanence in change. What is not determined by a cause is either complete in itself or remains wholly unintelligible to us. If it is unintelligible it cannot even be placed in time, since time determination is but a form of our understanding in the Kantian sense. If it is self-contained it cannot emerge into existence at a particular point in time. Its appearance in time shows that it is conditioned and determined by preceding causes. It is explained by, and in this sense anticipated, in the past. In the frame-work of time

1. Das Gupta, *Indian Philosophy*, p. 320.

2. Quoted in J. England's *Kant's Conception of God.*

there is no room for novelty or chance happenings. The temporal order is not a flow of contingencies but is an ordered and interconnected whole. The Naiyāyika view of causality which makes it a one-way series is thus inadequate as an ideal of explanation. Thought must postulate the implicit or the potential and hold that the effect is implicitly or potentially prefigured in the cause.[1]

The belief in a permanent substance or 'thing' underlying change is not the result of prejudice as Russell and other realists suggest, but is the indispensable implication of our experience of temporal succession. When for instance ice melts into water, or milk turns into curds, we believe there is a continuity underlying this process which enables us to say that, in each case, it is the same substance appearing in a different form. But Russell believes that this way of stating the phenomenon has no justification except in our prejudice. According to him "what we really know is that, under certain conditions of temperature, the appearance we call ice is replaced by the appearance we call water".[2] This is the limit to which empiricism can be carried and one would have thought that it had met its final refutation in Kant. If by 'knowledge' we mean sense-experience then we cannot even know that one appearance has *replaced* another since this involves a time-determination and time is not a matter of sensuous experience. The assertion that objects are in time is therefore as much in "consonant with our prejudices"[3] as the assertion that they are permanent. If we can come to know that events are in time we can also know in the same way that they are causally determined and this means that they are taken to be the passing phases of an underlying identity. Russell admits that there is a law which guides the succession of appearances,[4] but I do understand how an empiricist can appeal to law, unless the 'law' be a mere description of the order in which appearances succeed each other in time. If the 'law' introduces necessity into the succession, and is in this sense *A priori* it can only be the *law of Identity*. To say that changes occur according to law is to admit that they occur on the background of identity. The 'law of change' asserts that an object develops in conformity with its essential nature, that its changes do not succeed in alienating it or breaking up its identity.

The law of causality is thus the law of permanence or identity. The effect is not a phenomenon suddenly emerging into existence. The previously non-existent can never see the light of existence. The effect must be regarded as potentially present in the cause and a combination of circumstances is necessary to bring it out. This is

1. See Radhakrishnan, *Indian Philosophy*, Vol. II, p. 100.
2. *Our Knowledge of the External World*, p. 105. 3. Ibid. 4. Ibid.

the Sankhyan theory (parinama-vada)[1] according to which the effect is not different from the cause ; it is the cause transmuted. *Pariṇāma* is a process of becoming in which the cause, passing through successive transformations, itself emerges as the effect. The effect is the cause at a later stage and the underlying continuity of existence is not disturbed by the process of effectuation.

But though the Sankhyan theory is an improvement on the Nyaya in so far as it introduces system into the objective procession of facts and also serves as a foundation for all scientific investigation it cannot be accepted without modification, as the ultimate metaphysical truth. The identity of cause and effect though necessarily postulated by a process in time cannot be made intelligible to thought. In a causal process the cause retains its identity only as it goes beyond itself. It makes a transition to another which is yet not 'another'. It remains itself only in so far as it alienates itself. This registers the contradiction of causality conceived as *Pariṇāma*. I may put the dilemma of causality thus. Either the effect is different from or identical with the cause. If the former it becomes unintelligible to us, we cannot in any way explain its existence. If the latter, then effectuation becomes a meaningless process. A cause that is itself the effect does not stand in need of any transformation, it is already that which it is said to produce. It may be answered that the cause is partly identical with and partly different from the effect, that in being transformed the cause neither remains itself nor changes *in its entirety*. It is not the whole being but a portion of the cause which changes and in this partially changed condition it is called the effect. This is merely putting off the solution of our problem. Is the portion that is changed identical with or different from the entire being of the cause ? If identical, the complete being has changed and the effect arises as a new thing altogether; if different then it alone and not the whole object is the cause and the problem of determining its relation with its effect remains unanswered. In short, there is, as Bradley observes, "no escape from this fundamental dilemma".[2] The effect cannot be a development of the cause if it is different from it and if identical with it "causation does not exist and its assertion is a farce".[3]

There is no way of rendering intelligible the transition from the potential to the actual. The term 'potential' existence as Bradley points out, is an attempt to compromise between 'is' and 'is not'.[4] If the potential already exists then there is no special significance in its becoming actual. If it does not exist then causality would be a leap

1. Das Gupta, *Indian Philosophy*, p. 258.
2. A. & R. p. 55.
3. Ibid. p. 55.
4. Ibid., p. 582.

into existence from previous non-existence which as we saw is indefensible.

The contradiction in the causal concept has led European Absolutism to regard it as inadequate as an ideal of explanation, of the universe as a whole. For causality it substitutes the more adequate concept of *Ground and Consequence.* The temporal schema is replaced by the logical schema. The law of causality is valid in the scientific analysis which abstracts from the universe for its own partial purposes. Causation in science means a series of events which are not discrete but are merely the earlier and later stages of a continuous process. Each event determines its succeeding event and is determined by the one preceding it. Science accepts the view that the universe is an inter-connected system intelligible in terms of reason and in this respect it approaches to a teleological construction of the universe. In its explanation, however, there is still a leaning to a mechanical hypothesis. Science arbitrarily assumes for its own practical convenience that one phenomenon in a complex can be understood fully in relation only to the phenomenon just preceding it in time. The effect can be understood by a backward reference to an event arbitrarily singled out and called the 'cause'. It is no doubt a rational procedure to explain a thing by resolving it into its cause but the cause should not be regarded as antedating the effect *in time.* A 'cause' rightly conceived does not merely run behind the effect, but runs into it and even ahead of it. The cause penetrates the effect and laps it round on every side. In determining an event we have not only to account for the push of the past but also for the pull of the future. The past is determined by the future in the same sense in which the future is determined by the past. Thus the law of causality is an imperfect perversion of the more fundamental law of teleology which expresses the connection and unity of all experience. It is the limited application in the field of science of the principle of *Ground and Consequence* according to which "the whole of existence is a single coherent system in which every part is determined by the nature of the whole as revealed in the complete system."[1]

The law of Ground and Consequence is clearly a makeshift if we bear in mind the discussion in the last section on the nature of time. It is an attempt to transcend the sphere of time and to convert the temporal relation of cause and effect, which is responsible for the contradiction in causality into an ontological relation. The criticism which I have urged against the view that time is an element in the timeless[2] applies also to this solution of the problem of causality.

1. A. E. Taylor, *Elements of Metaphysics*, p. 167.
2. See also next section.

The solution appears plausible only because it exploits the paradox of time. It fixes its attention on the permanence of time and over-looks its transiency. We do not in any intelligible sense transcend the sphere of time by substituting Ground for cause, unless we wholly ignore the phase of change or transiency in things. This we cannot do so long as the Ground is regarded as *concrete* and embracing the world of finite experience in which succession is as much a fact as continuity and alienation and change stand out prominently in the background of Identity. Since the Identity of the Ground embraces change and transiency, it is an identity that is affected by change and therefore the relation between it and the consequence cannot be denied to be a temporal relation. If the Ground or the systematic Whole transcends time, it is, as I have pointed out, only in the inconsistent sense in which time transcends and yet retains its purely temporal character. The Ground which embraces the consequence is not Eternity but Time. The relation between time and change cannot be determined, with any consistency, to be either temporal or non-temporal. And just as Time truly transcends itself and becomes one with Eternity only if change, which is the concrete filling-in of time, is negated. So also the Ground becomes truly non-temporal only as it negates the Consequence and identity as it negates difference. The consequence or the entire realm of finite effects is not the concrete expression of the Infinite Ground or Cause but an illusory product super-imposed on it.

The whole question is, can the attempt of a temporal process as such to appear more than temporal, be made intelligible to thought? Are the past and future to be *literally* regarded as synthesised in the present? The present of our experience is itself a *shifting* present which implies that it is continually moving away from the past of which it is already divested and towards the future which it has not yet appropriated. In this sense the present cannot be said to include or have any relation with either the past or the future. And yet the *continuity of time* implies that the present is not an isolated or static point but enters into relation at both ends, as what the past has grown into and what in its turn will grow into the future. The *dynamic present* thus is not a solution but a summing up of the paradox of time. Time can be neither asserted nor denied to be a unity. The unity of time is essentially an indefinite concept which means that it is intelligible neither as temporal nor as non-temporal. It has to be accepted as an empirical fact but does not conform to the conditions of ultimate truth. The identity underlying the past, present and future is, as a *synthesis* of these, a flowing identity which maintains itself only through self-alienation. Eternity is the Identity that stands still. But the dynamism of existence can be overcome

only if the three-fold divisions of time together with their concrete contents are rooted out from it. Existence must be regarded as merely *appearing* in and not actually breaking out of or expressing itself in the three modes of time.

The way out of the contradiction of causality as *pariṇāma* is not to synthesise the indefinite past and future in the shifting present but to recognize an underlying Identity as the sole reality which, however, does not embrace but negates all distinctions. The Ground of the changing process alone is real, the Consequence as distinct from it is illusory. This is the Vedantic doctrine of *Vivartavāda*[1] which establishes identity between effect and cause, but regards the process of effectuation as an illusion. Of course if we take into account only the empirical chain of causes and effects or the objective procession of events we shall have to regard the effect as development of the cause and admit a genuine time-relation between two successive events. But since *pariṇāma* does not stand in the light of reason, we must seek for the Ground of change in something deeper than the momentary cause which is only a link in the series of change. We have to recognize that the Ground of every finite fact is nothing short of the Absolute. Thus according to *Vivartavāda* the finite as effect is identical with the Absolute as Cause, as distinct from the cause it is inexplicable (anirvacanīya) and hence ultimately illusory.

In absolutism therefore there are two ways of expressing the relation in which the finite stands to the Absolute, *pariṇāma* or vivarta. In *pariṇāma* I include the so-called law of Ground and Consequence, for the Ground which embraces a finite content as a real element in itself must be *modified* by the change in it. The *pariṇāma* relation is unacceptable for the reasons I have already stated. Firstly, it is a temporal relation and is rendered unintelligible by the contradictions of time. Secondly it brings the Absolute into real touch with something other than itself and thus destroys its *non*-relational character. *Vivarta*, however, is only symbolized as a relation, since it establishes the Identity of the finite with the Infinite through the negation of its finitude. If such identity be called a relation it is a one-sided relation, in which the finite has the ground of its being in Infinite but not vice-versa. It is the finite that in the last analysis turns out to be the Infinite and not the Infinite which reveals itself as essentially finite. The identity therefore negates that which distinguishes the finite from the Infinite, there being consequently nothing by the side of the Infinite from which it could distinguish itself.

Though *Pariṇāma* has finally to be rejected, still the postulate of the causal process that all appearances have a Ground, that an

1. Das Gupta, *Indian Philosophy*, p. 258.

Identity underlies all differences is perfectly valid. But it has to be modified and made consistent. The Identity of the Ground can be made intelligible only if it is regarded as *abstract*, as not embracing but denying differences, as being not the synthesis of endless distinctions but the substratum on which these distinctions are falsely superimposed. The contradiction in the notion of *pariṇāma* justifies in my view the transition to *vivartavāda* as representing the relation of all empirical effects to their Absolute Ground. I shall now go on to consider the significance of the contradiction in the notion of time.

III.—The Significance of Contradiction

I have reduced time, change, causality, into contradiction. The difficult question remains to be considered, what does the fact of contradiction in our experience imply? Is it an indication of the inadequacy of thought and its categories to unravel the mystery of existence, or does it lead to an ultimate scepticism regarding the intelligibility of our experience? On the first view, it is we who fail to give a consistent account of our experience. In the latter view, it is experience that fails to give an intelligible account of itself. Usually it is held that contents of our experience cannot in themselves be inconsistent. Contradiction arises, due to a confusion in our thought, and can best be described as an error of judgment. Are contradictions purely subjective? If in pursuing a rigorous analysis of any given content, we are brought to a logical impasse, it means that we are in the presence of a *failure* of thought. But is the failure due to some vestige of defect in the logical pursuit itself, or is it a warning that we should turn the philosophical gaze from the surface appearances, which are ultimately illusory, to the absolute reality underlying them? A Bradleyian may object, that according to our procedure it would seem the task of philosophy is to reduce all phases of our experience into contradictions and leave them there. But if the Bradleyian takes a further step, it is to gather up all these contradictions and house them in the Absolute, with the pious hope that somehow all will be well, once we hand over to the Absolute the charge of all our perplexities. This is, as James says, "making a luxury of intellectual defeat".[1] Let us consider Bradley's claim that time, which at this level defies logical analysis, will cease from troubling when it is transformed in the Absolute. In Bradley there is always an ambiguity, regarding the nature of transformation of appearance. It is not clear whether in being transformed the special character of time is lost or simply merged. Bradley says: "It (time) is an appearance, which belongs to a higher character in which its special quality *is merged*. Its own

1. *Principles of Psycholo*gy, Vol. I, p. 179.

temporal nature *does not there cease wholly to exist*, but is thoroughly transmuted."[1] This shows clearly that according to Bradley there is no feature or aspect of temporal appearance, which has to be given up in order that time may enter as an element in the real. But a little further he adds: "The Absolute is timeless, but it possesses time as an isolated aspect, an aspect which, in ceasing to be isolated, *loses its special character*."[2] The question is, is the special quality of time lost or nearly merged? To retain a character in a latent or subdued form is surely not to lose it. It is not possible to determine what is exactly Bradley's view on this point, for in dealing with it, he often indulges in paradoxes.[3] It is therefore best to take the two possible alternatives, of time, maintaining, or losing its special character, and see whether on either view, Bradley succeeds in resolving the inconsistencies of time in the background of the timeless.

The special character of time, which makes its problem insoluble, is its *transiency*, its tendency to lapse, to move on and to pass away. This is evidently what Bradley regards as the "special quality" of time which he is so anxious to transcend. Time is an attempt to reconcile permanence and change, and if the attempt ends in an inconsistency it is due rather to the phase of change than of permanence. According to Alexander time has three features: (1) Duration in succession, (2) Irreversibility, (3) Transitiveness.[4] The first two features do not make time a paradox. Thought seeks to stabilize all experience through the category of permanence, which enables it to gather up all the fleeting contents of sense and bring them to rest in a unity. Duration in succession, therefore, does not straightway land us in a contradiction. It rather reveals, as Bradley suggests, time's tendency to transcend its own nature. Nor is the characteristic of irreversibility any reason for indulging in a subversive dialectic against the notion of time. It is the phase of transitiveness in time, that makes it insoluble, an eternal mystery to thought. Its unintelligibility, which drives us to reject change and time as conditions of a series of illusory experiences, prompts Bradley to seek a solution for them, beyond the level of thought in the Absolute.

Bradley does not give us a real escape from the difficulties of time. We do not know how temporal events would appear when thoroughly transmuted in the Absolute, and if they are to be rightly viewed, *sub specie aeternitatis*, it is a vision which we cannot comprehend. We know things only in the form in which

1. A. & R. pp. 209-210 (italics mine). 2. *Ibid.* p. 210 (italics mine) 3. See chapter on "Ultimate Doubts", p. 511. 4. See Gunn: *The Problem of Time*, p. 255.

they appear to us, and if they are transformed to a degree which Bradley thinks necessary, then they simply outgrow all recognition. They are nothing to us though they may be preserved in the Absolute. A transformation of their internal natures is needed to make good their discrepancies, but if harmony is at last attained in the Absolute it is attained at too great a cost. The appearances are not so much transfigured, as disfigured. They become meaningless abstractions, unintelligible, because their natures are forever unknown. The task of philosophy according to Bradley is to gather up all the contents of our experience and assign them to the care of the Absolute. But when this is coupled with the task of ridding the contents of their discrepancies, it ultimately defeats its own purpose. Its "merging" is not always distinguished from its 'losing' and transformation almost amounts to negation.

Is the assertion that time transformed is a self-consistent predicate of the timeless, intelligible? Time, in the absolute, either retains or loses its character of transitiveness. On the first alternative time cannot transcend its contradiction, for it is the transiency in time that renders it ultimately unintelligible. The contradiction in a given content cannot be overcome from any point of view, if that in it which gives rise to contradiction is a feature inseparable from it. What is unintelligible to thought cannot be rendered intelligible to the vision of the Absolute, for then such a vision would remain for us perfectly unintelligible. The contradiction of an object, discovered at the finite level, must be asserted to be as ultimate as the object itself, and cannot be overcome merely by shifting the reference from the finite to the infinite. We cannot say that when thought is confronted with a contradiction, it proclaims its own inadequacy, and prompts us to seek a solution of the contradiction in a sphere beyond itself. The solution of a problem consists in its conforming to a logical ideal, an ideal of thought. But if thought is itself disparaged as too partial or inadequate to deal satisfactorily with the problems of experience, then experience is condemned to eternal incoherence, for the standard by which it could be rounded off into a consistent system is itself surrendered. The 'solution' of a problem, if at all it is genuine, must be offered at the level at which the problem arises. At any other level the problem does not make itself felt and the attempt to resolve its perplexities becomes superfluous. Any attempted solution of a problem under conditions different from those in which it arises could at best be treated as an 'intellectual luxury,' as the mind's way of seeking an escape from the humiliation of being confronted with the unresolved paradoxes of experience. If thought condemns a given appearance as contradictory there is no higher court of appeal in which the stigma of contradiction can be removed. We cannot trust the

Absolute to make good in its own ineffable way what our finite intellect has undermined. Such an absolute in attempting to overrule the dictates of the intellect, works its own ruin, since it is but a deliverance of the same intellect which it undermines. We can understand thought's transcendence of itself, but not a perversion of its ideal. Thought may ultimately be resolved in the background of an Intuition in which its relational and discursive character is lost, but so long as it functions its authority cannot be questioned and its deliverances must be taken as ultimate. "To think," according to Hegel, "is to bring out the truth of our object, be it what it may."[1] And if our object reveals itself to thought as a mass of contradictions, *that* is the irrevocable truth about it. Much of the mysticism in the Neo-Hegelian philosophy appears to be no more than a make-shift. The attempt to rescue philosophy from being entangled in relations, by calling the concrete absolute *non-relational*, is indeed praiseworthy, but it is made at the expense of logic; and the frequent resort to 'somehow' in order to restore harmony and balance in the Absolute, merely covers up a failure to reach the desired result by legitimate means. So long as Bradley clings to appearances and retains them in the Absolute, he does not make any real advance beyond Hegel, for his Absolute, in spite of his protests, never really breaks away from the entanglement of relations. Bradley's main departure from Hegel consists in his setting a limit to the pretensions of thought. Unlike Hegel he does not admit, that thought can systematise experience and give us the unity we desire so much. If it be the task of philosophy to reduce all phases of existence to a single principle of unity then it must be granted that some confusion, some final inexplicability ever clouds the philosophical outlook. Thought has no *proprius motus*, no inherent principle of unity. But Bradley's escape from the impasse to which Hegel brings us consists in indulging in a psuedo-mysticism. All sides of existence *somehow* belong to a concrete whole in which their harmony is restored, though in what way we cannot tell. If experience fails to unify itself in the presence of thought the unity is not likely to be achieved behind thought's back as it were. What is found impossible for thought is impossible in reality and, as we shall see, the more logical way to deal with a manifold content that refuses to enter into a closed and complete system is to give up the fruitless attempt at a synthesis and declare the content to be illusory.

Our conclusion, is that finite things are essentially self-contradictory. Their nature is to fall to pieces within themselves and to seek a transcendence of their own finiteness. Hence time, on the first alternative, *i. e.*, if it retains its character of transiency, cannot step

1. Quoted in Turner's *Direct Realism*, p. 268.

out of its contradiction. The problem of time cannot be solved outside the sphere of time any more than the problem of traversing a given distance of space can be solved outside the sphere of space. To attempt a solution of the problem of time, in spite of thought, is not to pass on to a higher mysticism but merely to invite scepticism regarding the foundations of thought. We therefore cannot lend support to Bradley's contention that contradiction somehow 'cancels itself' in the Absolute.

The attempt to solve the contradiction of time, which includes its character of transiency, leads, as we saw, to a scepticism regarding the nature of thought. But on the second alternative which I shall now consider, where time robbed of its main character is yet retained as an order for reality, we are landed in a scepticism regarding the nature of things. Before considering how Bradley's view leads to scepticism, I shall raise another point of fundamental importance. It is the old question whether in Bradley transformation does not amount to negation and whether the assimilation of all contents of our experience does not involve a rejection of certain features contained within them and which if not rejected would prevent the conflicting contents from settling down into a harmony. There is a certain amount of charm in Bradley's assurance that he will preserve every detail of existence in his Absolute,[1] which is wide enough to embrace all contents. The Absolute is to be a vast storehouse of all appearances in which nothing is lost but in which the least thing known or experienced finds it appropriate place. Unfortunately this remains a mere assurance. In actual procedure our experience is stripped of most of its contents. The transformation takes its toll of those main characteristics which constitute the very life of appearances as we know them, so that, in the end, it is only the shadows and phantoms of appearances that find their solitary way to the *Valhalla* of the Absolute. This is seen clearly in the instance of time. Time is first denuded of its character of transiency before it is fitted into the framework of the absolute. But experience reveals to us that transiency is a feature of time and objectively characterises it. Bradley claims to account for (*i. e.* synthesise) all forms of appearance. But the phase of transiency is as much a fact, calling for explanation, as time to which it belongs and it is no explanation of it to say that it is lost in the process of transformation. If Bradley is earnest in his assurance that nothing in the Absolute will be lost, then he must see to it that not merely time but all the features revealed in it are ultimately preserved. There is no principle of *pure negation* in Bradley's philosophy, no room for the play of *Ajñāna* or Ignorance, since all appearances are grounded in the Absolute. Hence it is inconsistent for him to maintain the reality of temporal events while affirming their apparent

1. A. & R., p. 372.

transience to be ultimately unreal. His philosophy can reject or ignore nothing. It will therefore have to account not merely for the facts which appear to us in time, but also for the appearance of *succession* or *transience* which is the form in which the temporal facts are known to us. If this appearance be done away with on account of its essential unintelligibility, the Absolute can no more lay claim to be the ground of all appearance, and if we can ease the conflict in the Absolute only by relieving it of a part of its content it ceases to be all-inclusive of appearance. This is the dilemma into which every philosophy of Synthesis must resolve itself. Either the Absolute embraces in itself a fatal inconsistency, an ultimate unintelligibility, or in seeking to be free from internal conflict it waives its claim to be the all-embracing synthesis.

I shall now briefly consider the contention that time enters as a consistent element in the timeless, when in ceasing to be isolated it loses its special character (*i. e.* transience). I may first point out that there is no warrant for holding that time in being transformed loses any of its qualities, except that it must *somehow* do so if it is to rescue itself from the 'logical ruin' to which it is brought by the possession of that particular quality. The assumption is made to suit the exegesis of a pre-conceived theory. If we start with the conviction that time is a real element in the timeless and is yet consistent with it, we may indulge in the pious hope that that phase of time which creates contradictions is somehow done away with when the reference is changed from the finite to the Absolute. But even granting that such a transformation is effected, the question remains, what is the value of postulating such an existence in the Absolute? If time loses its main character, and assumes a different nature it would cease to be time. At least we would not recognize it as such if we were to experience it in its rarefied condition in the Absolute. The need for assuming an all-embracing synthesis is that it conserves and makes real all those facts with which we are familiar in our lives and in which 'our hearts find delight'. But if our facts lose their familiar outline and assume some ghostly form which we cannot comprehend, then they cease any longer to interest us and it is a matter of indifference whether they are preserved in the Absolute or not. Similarly, if time changes its meaning in the Absolute, it is no more the time that we know in our experience. It has grown alien to us and our interests. It does not respond to our overtures and it is only in a fit of generosity that we assign a place to it in the Absolute. Bradley preserves time as an element in the real and yet denies its character of transiency. What does such a time mean? Is it in any sense intelligible? It amounts to asserting that events in time are real provided they are non-temporal. What then are events, and how can

they remain over if they are deprived of their temporal character? If we deprive a fact of its known content it loses all meaning for us. It is reduced to bare existence, a *that* without any *what*, so far at least as our knowledge of it goes, though it may possess other characteristics unknown to us. We, however, have no means of knowing whether an appearance when transformed possesses some other quality not revealed to us and hence we can only say of it that it *is* in the Absolute and not what it is or even that it has any 'what' at all. But when we do not definitely know that finite fact possesses a what which is not revealed to us, and further when we are told that its known 'what' does not really belong to it then even its bare existence ceases to interest us and to postulate it as ultimately contained in the Absolute becomes a gratuitous procedure. The unknown substance of Locke and the 'thing-in-itself' of Kant are resuscitated in Bradley's philosophy in a different form. We can predicate nothing of the transformed appearance beyond asserting that it finds a place in the Absolute and hence it serves as much purpose in accounting for *our* appearances (*i. e.* the appearances revealed to us) as the unknown substratum of qualities serves in accounting for our knowledge of external objects. Besides on Bradley's view it is impossible to assign any known quality to an object of experience at all. If objects were unchanging there would be no difficulty in saying that they would continue to possess the particular qualities which they are seen to possess such as colour, size, shape, etc. even when they were thoroughly transmuted. But unfortunately objects change, they do not always possess the same qualities and further their qualities are not only changing but are mutually contradictory. All the known qualities of an object are conflicting in nature and they can be predicated of it only *at different times*, but not at one and the same time. The ascription of mutually repellant qualities to a substance is possible only if we admit the reality of a process or change in the object. Without changing, it would be confined to only one set of qualities. The possession of different sets of qualities such as round and square implies the reality of a succession, a process, or in short of *the transiency of time*. If the succession in time is ultimately unreal, then the succession of qualities is also unreal. From this it would follow that we could not assert that the qualities of an object really belong to it, since there is no succession in the object and we have seen that an object can possess mutually repellant qualities only successively and not simultaneously. Now if there is no succession of qualities in an object there is no way of predicating the qualities of it. An object in our experience may possess both a round and square shape one after another, but in the Absolute it would have to be round and square all at once since in it there is no movement of time. This is

impossible and hence we shall have to say that in reality the object is neither round nor square, nor does it possess any other shape which is revealed to us in time. Similarly with other qualities. We cannot say what colour an object really has or whether it is coloured at all. All its qualities are equally indeterminate and cannot be known to belong to it. What then is the object? Stripped of all its presented qualities it altogether transcends our experience and becomes a 'something I know not what'. We may well ask what philosophical satisfaction is got by preserving such an object in the Absolute.

The denial of the transience of time renders our knowledge of objects completely nugatory. If, by this character, time is made inconsistent, then the way out of the difficulty is not to remove it and leave time standing, but to deny the reality of time itself. Time apart from transiency would not be distinguished from eternity. The motive behind the denial of transiency as an ultimate feature of time is to make time somehow a Whole, something which is 'all there' and not something which is endlessly passing away and recreating itself. Time is presented to us in sections, but this it is supposed is due to our limitations. If our limitations were removed the sectional presentation of time would vanish and the whole of time would be revealed to us unscrolled in one all-comprehensive vision. Perhaps to the vision of God, the past and the future stand revealed as aspects of one Eternal Present.

This, however, is a mere assumption. The nature of time is essentially self-contradictory and does not owe its nature to our limitations. If time is presented to us in sections and not as a whole it is because it is presented in the form in which it actually exists. Time is essentially indefinite. It cannot be determined to be there or yet not there. It is continuously moving on and yet somehow implies the reality of that towards which it moves (*i.e.* the future). This partial attempt at self-transcendence should not be taken as constituting the solution of the problem of time but rather as revealing its essential unintelligibility. The past and the future are not contained in the present in any intelligible sense. Their inclusion in the present can be neither denied nor asserted to be a fact since on either alternative the paradox of time remains. Time, however, essentially consists in a process which implies that it can only be presented in bits as it were and never as a whole. The past and the future cannot be perceived side by side with the present and if it is claimed on behalf of an omniscient mind that the whole of time is stretched out before it, then we can only say that such a mind is not possible or if possible then it misrepresents the real nature of the

time. To perceive time as a *changeless* whole of continuous events is to distort it, for such a time does not exist.

To sum up the result we have reached so far Bradley fails to show us a way out of the contradiction of time. On no account can time be regarded as a real element in the timeless Absolute. Its nature consists in an internal conflict which if removed would result in its losing itself as time and becoming one with the background of Eternity.

With Bradley we would admit that contradiction is not ultimate that nothing in the end is in its essence self-contradictory. We cannot leave our experience in a state of conflict for that would not satisfy the philosophical impulse. Philosophy can have no sympathy for an experience that revels in contradictions. Its task is to solve contradictions and not to create or condone them. I must therefore show how time in its essence overcomes the contradictions to which it gives rise and thus answer the criticism that I have simply abandoned facts after converting them into paradoxes. I have already affirmed that no finite fact can be 'deserted,' but must be shown to be connected with the ultimate reality in some intelligible way. The task of resolving contradictions is imposed on every genuine system of philosophy. But in Bradley, the task proving too heavy for us finite beings, is conveniently shifted on to the more capable shoulders of the Absolute. It is no doubt a very easy way out of a vexing problem to say that 'somehow' it is solved, and we too would have been tempted to adopt this simple procedure had not an *a priori* consideration precluded us from doing so. We have seen that it is not possible in any way to reconcile the conflict of time, if time is taken as a real element in the absolute. The conflict is asserted to vanish, either in spite of thought, or by surreptitiously introducing negation in the process of transformation of time, *e. g.* when it is said that its special character is *lost*. But on my view time can overcome its conflict only if it is declared to be an *illusion*. In fact this solution merely takes a step beyond Bradley's. For Bradley time is transformed and loses its special character. I would say the same thing, only for 'transformed,' I would substitute the word 'negated' and further regard the 'loss' as consisting in not merely the transience and other features of time, but of time itself *as distinct from Eternity*. The presence of a contradiction in an object means that it is not what it appears to be. Hence time if infected with contradiction, is not really time, it is Eternity. *Time as time* has to be negated as an illusion. The consideration of the feature of self-transcendence in appearances is necessary in understanding how a seemingly 'objective' contradiction can be resolved. Time's transcendence of itself enables us to assert that *time is not time* and hence the

contradiction which is seen in it does not really belong to it. We have seen also that an object's transcendence of itself implies the ultimate 'unreality' of its 'lower self' and so we may say that time in the act of self-transcendence negates itself *as time* and becomes one, not merely united, but identical, with Eternity.

To call an object illusory is to recognize this dual feature of self-transcendence and self-negation, the positive and negative sides of the same truth. If only the negative side *i. e.* the feature of negation, were emphasised, our philosophy would no doubt be open to the charge of 'deserting' appearances and leaving them to their dire fate of internal conflict and confusion. Much of the criticism of Śankara's philosophy arises from a confusion on this point, from a non-recognition of the principle of self-transcendence. Even when Śankara calls the individual self (Jiva), as distinct from the Absolute (Brahman) illusory, he is careful to add the individual (Jiva) is no other than the Absolute. Śankara's Brahman is not an 'abyss of negations'[1] unconnected with our knowledge, since it is the essential nature of all that we know. Nor is it properly "the tomb of the finite,"[2] for the finite neither lives nor is buried in the Absolute, but is the absolute itself once it is shorn of all its limitations.

The contradiction of time can only be overcome on the hypothesis that its distinction from Eternity is illusion. Strictly speaking, there is no *assertible* contradiction anywhere. The contradiction in the experience of time is felt as a real problem only as time is regarded as a real[3] fact. Thus, for us, the problem of solving its contradiction does not arise. For Bradley the problem arises and is insoluble, or *somehow* solved, which so far as we are concerned amounts to the same thing. Time in its essence is eternity, since *as time* it is illusory. This means that in its real form it does not embrace contradiction, since, *ex hypothesi*, eternity is not a process or a change. Contradiction belongs to it *as time*, if at all it can be said to belong anywhere. We may, for convenience, distinguish between two times: (1) time as eternity; (2) time as time. In the case of (1) the problem of dissipating contradictions does not arise. In (2) it arises, but is seen to be illegitimate as soon as we recognize that time *as such* is an indefinite or unassertible content. It cannot be asserted, since it is an *illusion* and is not known to be either related or unrelated to reality.[4] It is simply presented to us, but lacks facthood or reality. It being an unassertable, we cannot say that

1. Alexander, *Spinoza and Time.* 2. *Ibid.*

3. The real is not here contrasted with 'appearance' in Bradley's sense, but with the illusory. The real is what finds a place in the Absolute, and in this sense Bradley's appearances are also real.

4. I have developed this point elsewhere.

it gives rise to contradictions, where the subject *it* is no longer believed and lacks all existential import.

Time as such being unassertible cannot be made the subject of a judgment and hence contradiction cannot be predicated of it. There is a difference between predicating two contradictory qualities of an object, such as existent and non-existent and not predicating either of these.[1] In the first instance we have a contradiction since a thing cannot be both existent and non-existent at one and the same time. In the second instance, there is strictly speaking no contradiction at all, since the unassertible content cannot be made the subject of an intelligible judgment. "The concepts 'not existent' and 'not non-existent' do not get related at all to contradict one another, being predicable of no assignable subject."[2] Similarly, of time *as such* we cannot say that it is both changing and permanent, since it is the attempt to reconcile change with permanence that ends in a contradiction. But we may say that time as such being an illusion cannot be determined either as changing or as permanent. It is indescribable (anirvacanīya).

The contradiction in time is thus finally removed. It arises only if we regard time *as such* as real, in which case the contradictory attributes get related and produce a conflict. Time in its essence, however, is Eternity which is ever free from the contaminating touch of contradiction. How that which is 'indescribable' can yet be presented and under the constraint of the presentation raise a psuedo-problem concerning itself, I have made clear in the succeeding sections which deal with the nature of illusion. We may now state the relation of time to Eternity. Time *as such* is the moving *distortion* and not image, of Eternity. As a movement and process it distorts the nature of reality which is static and permanent. "The now that flies away makes Time; the now that stands still makes Eternity."[3] The 'now' of time is a contradiction and hence it is not distinct from the 'now' of Eternity. It is the same 'Eternal Now' which appears as though it were continually flying away. This appearance is an illusion which has to be negated in order that the "Eternal Now" may be revealed in its true nature. Time embraces contradiction because it embraces change and hence Eternity is free from contradiction only as it *negates* change. Everything short of the Eternal is change and is affected by change and hence the Eternal cannot embrace any content within itself. In short, time is as embracing change the concrete existence; Eternity is as negating change the *Abstract Existence*. It is the same

1. See K. C. Bhattacharya's Paper, "Sankara's Doctrine of Maya," published in the proceedings of the Indian Philosophical Congress (Calcutta Session).

2. *Ibid.* p. 50. 3. Boethius, *The Consolations of Philosophy*, p. 38.

existence as time divested of its concrete determinations. The Absolute of philosophy must necessarily be an abstract and not a concrete Identity. That which is concrete embraces content, which falling short of the whole must be regarded as finite. Change pervades the entire realm of finite existence, and an Absolute that includes the finite includes change. If change is retained in the Absolute, the latter will be infected by the contradiction of change. If it is held that change in the finite passes beyond mere change in the Absolute then it has already been shown (I need not repeat the arguments here) that on this hypothesis the finite either becomes a meaningless abstraction or it transcends its finitude and becomes one with the Infinite. The Eternal in the true sense (Kutashthanitya) denies all change, transformation or process. This would reduce the entire range of empirical existence to a vast *illusion* and make the all-comprehensive time process not a real manifestation of the absolute, but a 'fiction of Nescience'. What then is Illusion? To this difficult question I have given a separate treatment for the full solution of the most fundamental problem in philosophy—the problem of Reality itself.

The Temporal and the Eternal

G.R. Malkani

The temporal is fact. The eternal is only an ideal. But the two are related. The nature of this relation is our main problem.

That which exists in time changes. But mere change has no value. It has value when it progressively realizes an ideal. This ideal cannot itself be in time. What is in time must itself change and progressively realize something else. It cannot be an ideal. It cannot be the goal of any progressive movement. The goal must be fixed. It must be outside the movement. It is that, which being realized, the movement comes to an end and has no further scope. We always ask, progress towards what? The question implies that the goal of progress is not itself progressive. Unless therefore we accept something outside time as the goal, progress itself has no meaning. We cannot determine the different steps which bring us nearer to the goal. Without this approximation to the goal, progress becomes mere process, which has no value and no meaning for life. There is progress when something stands outside a particular movement, when this something is fixed relatively to the movement, and when the movement approaches nearer and near to it till it can, in principle, reach it or realise it absolutely. The only real values in this sense are external values. Temporal values are at best progressive expressions of the latter.

A view is something propounded that values need not be fixed or eternal. They are themselves infinitely progressive, so that when we reach A, we find that there is something higher still, say B, which is yet to be realized. Our progress is thus, in principle, indefinite and even infinite. This may be so from a finite and human point of view; for we cannot see the higher ideal all at once. But it is not logically true. An indefinite progress is no

progress. It means that any distance traversed in the direction of the goal makes no difference to the distance yet to be traversed. In other words, however far we go, we do not bring the goal any nearer to ourselves. The distance dividing us from the goal is always infinite. This means that our movement makes no progress towards the goal. It is not a progressive movement. We are for all practical purposes stationary in relation to the goal. We do not move at all towards it.

We have so far assumed that value is a necessary characteristic of temporal reality. But need that be so ? All we can say is that time is an attribute of the reality which we know. Now it is no doubt true that time, as an attribute as physical nature, may be said to realize no value. Physical nature merely changes, it does not progress to anything higher. The same may be the case with respect to life that is purely vegetative. But it is quite certain that time does realize a value far human beings. Value is a human category. It can only be realized in human life. But human life itself is part of human history; and so the latter too can be said to realize a value. The individual has a life of his own, and may progressively realize some ultimate value in it. But human society too has a history. Does this history progressively realize a goal which is outside history? Herein lies the whole question of the meaning and the value not only of human life, but of time itself.

A way of looking at history is that it is a drama which is being played out in time. A drama must have a beginning, a climax and an end. One view is that it is a drama devised and directed by a benevolent God. The created man and endowed him with some of His own spiritual qualities. He created him after His own image. As long as man lived in obedience to His will, he lived in complete peace and happiness. There was no history. But the moment he disobeyed, he had a fall from that state. With this fall history began. All his subsequent efforts are to return to the original state of perfect happiness. Since God gave power to man to disobey, He also felt compassion and love for him in his fallen state. The way He showed His love was a kind of divine sacrifice,—the sacrifice of the lamb of God,

Jesus Christ, who freely sacrificed himself, in order that man may be free and in order that he should live. This intervention of God in human history was the climax of the drama. The end is definitely determined by this intervention. It will be the kingdom of God, when the fallen will arise and live once again a God-like life.

The viw of history is super-natural and theological. But that is bound to be the case, when we take in our purview the whole of human history. Empirically, we can see periods of rise and fall, —rise in certain respects and fall in others. we can see changes in the kind of values that are most cherished at different periods or epochs of history. We can see different social groups pursuing different goals at one and the same time. There is certainly no single goal pursued by the whole of human history. Even if there were one, there would be no assurance of its ultimate consummation on purely empirical grounds. We can never answer empirically the question, whither history? there is no rule by which we can judge the direction of the historical process, on the possibility of any goal out of time being realized by it. We can claim no rational guidance in this matter. The only guidance that appears to be possible is that of scripture. Unless we have faith in the scripture, we cannot judge the ultimates of history, —its obsolute beginning and its absolute end. While this is true, and we may therefore have recourse to the scripture to decide what might be the beginning and what might be the end of history, the very notion of history as a unilineal progressive movement, having a beginning and an end, is open to difficulties.

Any beginning of history is bound to be arbitrary. What was the state of affairs before history began? The beginning of history must have a cause beyond it. This cause must be outside history, and therefore outside time. Can any such cause, or an eternal cause, explain what occurs in time or what is essentially temporal? Can time have a beginning in eternity? We might seek to answer this question by introducing the person of God. We might suppose that God, who is eternal, is responsible for the temporal process. He creates time and the world in it. But then does He achieve something new and something valuable thereby? If He does, then

such achievement is inconsistent with His eternal perfection. Some philosophers might therefore be inclined to suppose that there was some imperfection in God, which was sought to be made good through the temporal process. They even speak of an evolving or changing God. But then he is not God in any intelligible sense of the term. He is not eternal or outside time. Only a perfect and eternal God can explain, if at all, the emergence of the temporal process through His will. Short of this, He will be part of history, and not a principle of explanation for it.

We have then a standing contradiction. If God is what He is supposed to be, i.e., eternal and perfect, He can indeed will the world, direct the process of history, and realize a value through it. He can give meaning to history and guarantee that it realizes a great purpose. But then what purpose is left for Him to realize when He is eternal and perfect? He is the same at the beginning of history and also at the end. History has added nothing to the value-content of His being. Since the beginning of history and end of it coincide so far as He is concerned, has it achieved any value far him? Is it not wholly meaningless? To put the contradiction briefely, God, the Eternal gives meaning to history, and yet how can history transcend God and realize a value which is not yet realized in His own being?

We therefore reject the view that the process in time is real and aimed at realizing the highest possible value which is not yet. The only thing to be said in favour of it is that insofar as it distinguishes the starting point from the point of termination, it gives meaning to the notion of progress. If a movement starts from a point and merely comes back to it, it has traversed a circular route and made no progress whatsoever. The view which we have been considering seeks to give some meaning to "progress" along a straight route. But can these be such a route meaningfully shaped within eternity?

The difficulties of this view are inherent in the dogma that there is a starting point for the temporal process. A pure secularist cannot accept a starting point and he cannot accept a God and His will as an explanation of time. Time is beginningless and also

endless. But if that is so, there can be no such thing as absolute progress. Endless time just goes from one position to another endlessly. There is no absolute goal of the temporal process as such. All goals are nagative, and so also is the progress towards them. There is progress from limited point of view and for limited periods. After such periods, there can only be retrogression. There is bound to be a culminating point for a progressive tendency, and then there can only be a fall or decay from the point. Progress is never maintained indefinitely, and the whole of time is not progressing to a final goal. All goals are relative, short-lived, ephemeral. Nothing is eternal and there is no progress on the whole. Time creates only to destroy. Even if there is such a thing as the logic of events, carrying the temporal process through certain progressive phases, progress cannot be maintained indefinitely. Nor can it end in a millennium when further progress is not possible. If a millennium were possible, time itself would stand still . But we are not prepared for that; for we have accepted an endless time and so endless progress.

We have accepted time as beginningless and endless. In such time, progress is followed by regress, so that there is no over-all progress towards anything. What is gained is as surely lost or destroyed. The historical process can achieve nothing real or enduring. We can go a step farther, and question not only its value-realizing character, but also its novelty-producing character. Time nothing if it does not create novelties. But in an infinite and beginningless time, all conceivable possibilities must already have been realized, so that nothing new could be brought into existence. What we suppose to be new must have been realized an infinite number of times before, so that it is only a repetition of what has already occurred times without number. By this reasoning, there can be nothing new under the Sun. Thus not only is value liquidated, but novelty also is liquidated.

We may not like such a conclusion, which makes the time meaningless, and so also our life in it. A third alternative is steel open to us. Not a unilineal progress from a lower to a higher level nor an aimless progress that is indefinite, but a cyclic

movement that is at the same time progressive. Let us suppose that there is an ideal state of being which is also timeless. There is however a fall from this state. The visible and temporal world, and we in it, constitute a state of degradation. How this degradation has occurred and through what causes is more than we can explain. We merely accept the fact of it. It may be a rhythm of the original reality, in which case to further explanation is necessary. It is so, because it is so. A degradation having occurred, a resurgence is almost a necessity. For this purpose we must suppose that reality or the original ideal state of being is immanent in the temporal process, and that it is directing the whole evolution, through the necessity of its own nature, to capturing once again the pristine glory of the ideal state. It is a short of home-coming. All we desire is to come back to the point from which we started and which represents our natural and original state, and so our highest ultimate goal. To put it in different words, the world, which includes matter, life and mind, has forgotten its own true self, and is in different states of conscious or unconscious mind. The reality immanent in the world however is tending towards shaking off these limitations, and realizing its own Self which is beyond the mind. In the ultimate analysis, we might say that the Supreme Self has forgotten itself in the world and is seeking to know itself through the world. It is a process of self-forgetfulness and self-recovery. The temporal process has thus a meaning. It is a meaning that is immanent in reality as such; for the reasons which account for the fall also account for the movement towards self-discovery and freedom. There is a well-known view in Indian philosophy, according to which, all things are born from perfection, they stay in it, and go back to it. From joy or *ānanda* are all things created, etc.

The view is clearly an improvement upon the first two views. There is progress, but not a progress from an arbitrary beginning in time to an arbitrary end in it. It is a cosmic process of winding and unwinding, involution and evolution. The process in time also gets meaning. The temporal reality becomes an emanation from Absolute Reality, and to that extent it partakes of its nature.

This emanation may be a form of self-alienation; but this self-alienation is destined to be terminated and transformed into self-realization. These is progress, meaning and value in all that occurs. But this view too has its own drawbacks. While the temporal reality is rendered significant, the non-temporal and external reality is not. There can be no reason in the latter to account for the supposed degradation or fall or self-alienation. If something is eternal, it must stay so. The transition from it to a changing and moving world cannot be accounted for. There is no relation between the two. Again, there is no real progress at all. It is a circular movement which gives an appearance of progress without real progress. Evolution does not carry us to a point higher than the one from which we start. It is a case of make-believe only. This view is therefore no more satisfactory than the other two; but it proves the way for one that can perhaps be accepted.

We now come to the Advaitic solution. The essence of it is that the Eternal will ever remain the Eternal. Nothing ever happens to it. There is no degradation, no fall and no emanation. The temporal is a fact. But it is not causally related to the Eternal and cannot be accounted for by it. In fact, there is no real relation between the two. At the same time, the temporal is not something in itself, unrelated to the Eternal and so independent of it. It is what it is only in relation to the Eternal. Something that does not exist in itself but exists only in relation to something else can only be a false or illusory appearance of the latter. The whole of temporal reality is such an appearance. We, through erroneous perception, know the Eternal as temporal.

What then explain the temporal reality? The eternal reality does explain it in a way. For it is its ground. We can say of the illusory that it is born out of its ground, stays in it, and goes back to it when it is cancelled through right knowledge. These is thus some similarity between this view and the last view. But there is also an important difference. The eternal does nothing. There is no fall or degradation from it. The temporal, as we have seen, is an illusory appearance. This appearance is necessarily

created, and it can only be created through the power of error. This power of error then, called *māyā*, is the other part of the explanation. At the same time, it is evident that the power in question cannot exist as a reality in itself. It is the very nature of the power of error or of ignorance to require an intelligent ground or *āśraya*. Only an intelligent person can be said to err. One *āśraya* of *māyā* can be no other than the eternal reality itself. Taking this as its support, it can create illusions. But erroneous knowledge, once it is corrected, disappears together with all its creations. It is not a reality and leave no residue. In fact, it is illusory as its creation.

What then is the relation of the historical process to Absolute Reality? We shall say that the former is an illusory appearance of the latter. The eternal appears to us as the temporal. We know the latter, we do not know the former in any explicit consciousness. If we did, the error would be exposed and sublated. We should then cease to give any value or reality to the temporal which will no langer be a problem for us. We should have solved the problem of the eternal and the temporal.

Does time have a beginning? Objectively speaking, time and the process in it can have no beginning. Once we accept a cosmos, we must suppose that its rhythm at least is beginningless. There might be cycle of evolution and involution, creation and dissipation but there can be no beginning to this process as a whole. In other sense, however, the whole of temporal reality must have a beginning. It has a beginning because it is illusory. The illusory is nothing if it is not created. Once therefore we accept temporal reality, we must also accept that this reality, together with all that it implies, namely its apparent beginninglessness and endlessness, are all a creation of *māyā. Māyā* indeed is not created; for it is itself the creative principle. But it is nevertheless illusory, and so it is its apparent beginninglessness. What is not known through any *pramāṇa* or method of knowledge and what is dissipated through right knowledge is illusory. Such is *māyā*. (This is a doctrine of Advaita Vedānta which we cannot expound here at length.)

What then is the significance of history for us? It is quite real

in our present state, in which we ourselves are parts of history. In this state, we must also suppose that it is beginningless and that it is realizing a value for us. The highest value is that of self-realization or self-knowledge. This is only possible in time. So far time is quite real. It is empirically real, but transcendentally it is not. Looking at history from the point of view of the Absolute Reality, the whole historical process is just an illusion. Nothing is ever lost or achieved in time. The eternal is the only reality and the highest value. There is no degradation of it, no emanation from it, and no creation by it. All creation is erroneous creation. The world in time and time itself are such a creation.

Our conclusion is that time is real only as long as we erroneously perceive reality, which is essentially eternal. It is in this state of error that bondage is real, and so is ultimate freedom. We can then speak of time as the gateway to eternity. For does it not lead us to the eternal at the end? But this is the lower stand point. One higher stand-point is that time and all that it implies is only an illusion, while reality is out of time and so timeless. Nothing is really gained or lost in time.

Time and the Absolute *

G.R. Malkani

I

Time we know. Its reality is empirical. There is no sense in affirming or denying time. What we do not know is that which is beyond time or that which may be termed 'eternal'.

But is there any such eternal reality? The temporalist would deny it. All reality for him is temporal reality. Nothing can stay outside time and exist. Only pure ideas do so, and they do not exist. For anything to exist, it must occur. It must be actual. In this sense, time is a determining factor in the reality of all things. What is outside time is what does not exist. It is at best an idea only. As opposed to this view, there is the Absolutist view. Reality is essentially timeless.

What happens in time is an appearance only; and appearance is to be distinguished from reality. Reality is *in itself*. Appearance is *of* something or *of* the real; and it is *to* someone. It is essentially relative, —it is relative to reality and relative to the percipient. It is midway between reality and unreality. The latter is what does not claim any truth. An appearance claims truth, but the claim cannot be sustained.

Here are two opposed views: (a) Reality is essentially temporal. Any appearance of non-temporality or of substantiality is subjective, false and fictitious. It is due to the erroneous habits of our intellect. (b) Reality is non-temporal. Any appearance to the contrary is subjective. Time has no place in reality; and its perception is an erroneous

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perception. We have to decide which is the correct view, or whether both the views are false.

II

We may accept Absolutism. Now there are two varieties of Absolutism—Indian and European. The Indian type is based upon the absolute character of reality itself. Reality is absolute. The European type is based upon the absolute character of an experience or what may be called Absolute Experience. The Absolute Idea of Hegel was both subject and object. It was a unity of the ultimate subject and the ultimate object. The Absolute Idea as subject knew itself as object. It was an experience of the form of self-consciousness. Again, the Absolute of Bradley was an experience. It was a non-judgmental form of awareness. This awareness was all-inclusive and integral. All these different western views about ultimate reality are in the tradition of Aristotle, who regarded God as a form of being, whose only activity was pure contemplative thought having for its object thought itself. The underlying idea is that without some form of spiritual activity, spiritual being has no meaning. But an experience, however all inclusive or absolute, must still retain the character of an experience. It must be a form of intellection or *vritti*. It must both arise and disappear. It cannot be literally out of time. It is a spurious variety of the timeless or the Absolute. Only reality that is in itself and that is not an actitity can be truly timeless, and so absolute. We therefore accept the Indian variety of the Absolute as more rational.

But why any kind of Absolutism at all? The acceptance of temporalism has a certain advantage. The reality of time is a universal fact of experience, and something about which all can be agreed. Before however we examine this view, me must make a distinction between European and Indian temporalists. The tradition of Indian philosophy in general is that of a value-philosophy. There is only one aim and goal of philosophical knowledge. It is absolute Freedom, typified by the terms *mokṣa*, *nirvāṇa*, *kaivalya*, etc. The tradition of western philosophy as it is done in modern times at least, is that of knowledge for the sake of knowledge. This knowledge is necessarily theoretic and secular in character. It has no goal beyond itself. Its only value is a certain intellectual satisfaction. The Indian temporalists, because they accept the Indian tradition of a value-philosophy, have greater affinity with the Indian Absolutists than they have to European Temporalists. Buddha was a temporatist in a very literal sense. But his whole philosophical thinking led him on to something that is indistinguishable from the Absolutist goal. "There is a not-born

a not-become, a not-caused, etc." This goal of *nirvana* to which Buddha's philosophy led was as positive and as absolute as the goal of *mokṣa* of Advaita Vedanta.

III

Let us now examine the temporalist philosophy. A consistent temporalist cannot accept the reality of substance in any form. Reality for him is process. A process is divisible into events, and these into smaller events. The limit can only be reached in durationless events called point-events or actual occasions. These will be the ultimate constituents of reality comparable to the substantival constituents known as atoms in the philosophy of substance.

A point-event has no duration. Its birth is its death ; or what is the same thing, birth coincides with death or being with non-being. If now being and non-being cancel each other out, what remains? Does anything remain ? Or shall we say that what remains is beyond both being and non-being, something like the *śūnya* of Buddhists ? But something beyond both being and non-being is either absolutely unthinkable, and so quite meaningless for thought,—or it is of the nature of transcendent being. Nothing can transcend being and non-being in *every* respect. If being is negated, we get non-being. If non-being *also* is negated, we get *transcendent being*. Can we think of trancendent being as anything but substance in its true and essential nature ?

Let us now suppose that being and non-being do not coincide, and that every event has some duration. It comes tc birth, *and then* it dies out. The moment of birth is thus separated from the moment of death. But if that is so, something that is born must be present at the time of birth, it must be present in the interval between birth and death howsoever short (for birth is after all divided from death by a line of demarcation), and it must be present in the death. Instead therefore of having purely momentary entities, we have entities which endure at least for 3 moments. But if that is so, each entity to that extent has a being which does not change and is really non-temporal. This however is only the thin end of the wedge. We can carry the argument farther. An entity that is born cannot come out of nothing. It must have a cause. It must be continuous with this cause. This means that the cause must in some sense continue into it. If the cause ceases to exist before the effect arises, then non-being (of the cause) becomes the cause of being (of the effect). There is thus continuity of being from the cause to the effect. The same argument can prove that the effect in its turn does not completely cease to be. It is in its turn a cause, leading to other effects. Nothing in fact ever ceases to be

completely. Absolute death of anything that once has been is unthinkable. It has no meaning. If this is so, the continuity of substance through the whole series of causes and effects is undeniable. What changes are the accidents of substance. Substance, however, ramains unchanged through them. It is necessarily non-sensnous and metaphysical. It is what underlies change. That is the logic of temporality itself.

Again, the temporalists emphasise creativity of the real. But creativity cannot be based upon the momentary. The momentary ceases before it can act. It is the nature of an act—not of the nature of an actor. To create, the creator must first exist before he creates. All action is necessarily based upon the being of a substance in this sense. Only a substance can act or create. There might be a question whether there is any substance in nature. If there is no apparent substance, we must seek one hidden behind or beyond nature. There is however no question about substantival being in the sphere of our own activity. I *am, and then* I act or create. Here is the only direct evidence of real efficiency and creativity. What is quite certain is that an act is momentary, the actor is not. The temporalist, if he is true to his experience, must accept substance as the originator of all change and process.

IV

A modified view may be proposed here. Let us suppose that substance is real and process also is real, and that the two are somehow related. The process may be said to issue from substance, which is on that account in the position of a First Cause. On a wider scale, let us suppose that God is the First Cause in respect of the world-process He ceates the world, which is a series of change. This God is timeles s eternal and truly substantival in nature. The question arises, how can such a God *really* act. The moment He acts, a change occurs in Him, and He becomes temporal, and so part of the world-process. A genuine substance must stand outside all process. But then how can it begin to act at all? We contend that while substance is fundamental to all creativity, it does not *really* crerte. It can only *delusively* be said to create. There is in this sense no real creation anywhere—there is only delusive creation. Substance *appears* to act and create, it *never really* does. The unchanging is the ground of all change. We have direct experience of this in our own being. We are the same, and yet we appear to ourselves to be acting and creating. In the case of God, there is an additional argument why He cannot be said *really* to act. God is infinite and perfect. How can such a being have any motive

for action ? He is *purṇa*, the Perfect. How can we add to perfection ? Any motivation for action can only be a sign of imperfection. To create human beings, who seek His fellowship, who have moral aspirations, who seek to realize higher and higher values, etc., can only be a delusive game for Him. It is at best a sort of make-believe. We are forced to the conclusion that we cannot conbine substance with process. Any such combination is bound to be irrational. There is gain neither in the being of substance nor in its value-content.

A variation of this substance-process theory is a new conception of ultimate reality. Ultimate reality is not static. It is not *mere* substance. To be static is only one poise of the divine being. Its other poise is its dynamism. By this, it overflows its joy, creates, becomes many, lives in the many, gets farther and farther away from its God-head, forgets itself—and then it retraces its steps in a process of evolution, recovers itself, and finally rises to the explicit consciousness of its divinity. We ask : But is it not irrational to suppose that self-conscious divine joy can degrade itself consciously to the position of inconscient matter ? What is the ultimate gain to the divine in this whole process of devolution and evolution ? All it achieves is to come back to the starting place after much unnecessary travail. Finally, whateven the poises, what is the divine *in itself* ? What is its own nature (*swarūpa*) ? It cannot be both, for the two characters contradict each other. If it is beyond both, how do we undertand what is neither static nor dynamic ? We can only understand it as transcendent being ; and trancendent being must be beyond time and change. Once again, substance and change are irreconcilable. We must choose between them ; and having chosen, one must be subordinated to the other as an illusory apperance of it.

V

We now come back to undiluted eternalism. Let us suppose that something is substance. But where do we know a substance ? Nothing appears to stand outside time. Indeed the scripture speaks of God, the soul, the absolute substance, etc. But these entities are matters of faith only, not of actual knowledge. What we demand is knowledge of substance. Natural change may demand a substance, but this substance is more or less a problem for us. The belief may be true, but knowledge is lacking. That however is not so in one special case. That is when we speak of what is called a spiritual substance. We have a direct experience of this in the form of our own immediate self That is a spiritual substance, if there is one. In fact, we know of no other spiritual substance.

The self has every appearance of being a permanent substance and it is at the same time efficient, creative and free. It is the only actor we know. How do we reconcile its substantiality with its efficiency? A simple hypothesis will achieve this. The self, which is of the nature of free intelligence, does not act. It is the mind that acts and the mind is not the self. But since the mind acts only in the relation of false identity or illusory identity with the self, it is the latter, which is the ground of the mind, that appears to act. In itself, the self is actionless and immutable. Through ignorance, it is confused with the mind and all its changes and movements. Here is the example *par excellence* of the creativity of substance. All substance create› only in this sense. It does nothing, and yet it alone appears to be the actor. There is no real creation by substance anywhere. All creation is illusory creation. Nothing is really created, and yet the appearance of creation is there.

The self is the only real substance in the whole changing universe Without this substance, there will be no apparance of change. There will be *jagatāndha*. Wherever there is change or appearance of change we must know that the self is the substance behind it, and that the appearance in question is only illusory. We shall now try to show how this is so in our perception of time, which is the generalised image of ale change. The principle on which we shall proceed will be that the nature of any objective content is determined by the form of our subjective experience of it. If the object is perceived directly and immediately, and without any contribution, mediation or interference by the subject, we know the absolute truth of the object. But if the object is wholly determined by the contributions made by the subject, it cannot claim real truth and must be pronounced a subjective or illusory appearance By this test, we shall find that our perception of time is illusory in charactor.

(a) We are said to perceive time, when we perceive the three moments of time,—past, present and future. Something that is future becomes present, and the present becomes past. But do we really *perceive* these three constituent moments of time? The future is nothing at all except in *expectation*. The past again is nothing at all except in *memory*. We cannot therefore be said to perceive either the future or the past. We may be said to perceive the present only. But the present is relative to the future and the past. Without this reference it has no temporal character. It cannot be known as the present. The whole image of time, with its three moments, is thus built up by the subject through its own contributions No one ever perceives time in the simple sense of the term. Time is a construction; and a construction cannot claim objective truth.

(b) All temporal distinctions have a necessary reference to the absolute standpoint of a unitary consciousness or the unchanging subject. Something is present *to me*, or past *to me* or future to *to me*. This subject or self is necessarily beyond time or in the eternal present. It supports the appearance of time, and is the metaphysical truth of all temporal distinctions and movements. Without it, the so-called three moments of time will remain unrelated, and will not give rise to the appearance of time as any kind of objective reality.

(c) Let us now do away with the subject, and stick to objective change. Can causality in nature explain both the succession and the direction of the moments of real time? But causality itself is a doubtful concept. It only gives rise to other problems. What is causality without efficiency? Can anything in nature be really efficient? Can the momentary be efficient? If causality is wholly mechanical, can it explain succession itself with its empty interval of time between the cause and the effect? Even granting that there is causality in nature in some sense, can it account for the *appearance of succession*, without which time has no meaning? Succession can only be realized in a non-succeeding awareness. Nothing in the objective world can take its place.

(d) McTaggart has given some other arguments why time is unreal. Whatever the merit of those arguments, his conclusion that our perception of reality as being in time is erroneous appears to us to be quite correct. Where we do not agree with him is his inference from the appearance of time that reality ought to have parts which are non-temporally related. He appears to think that there must be some timeless relation of entities which we erroneously perceive to be in time. But, in our opinion, a timeless relation can as little explain a temporal relation as no relation at all. There can be no limitation put upon erroneous perception. Error is a law unto itself. Suffice it therefore to say that the timeless is erroneously perceived by us as being in time.

(e) We have so far considered the subjectivity of change, movement and succession. But time is not only that. That is an abstract image of time. The more concrete reality of time consists in duration. But is duration less subjective? We think not. It is the rate at which the subject lives and feels that determines our perception of duration. It is only abstract duration that is measurable objectively; and abstract duration is no real duration at all.

We conclude that substance which is timeless is the only ultimate reality, and that time with its movement and change is only an illusory appearance of it, due to our ignorance of erroneous perception.

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Time in Indian Philosophy

G.S. Herbert

This paper can be broadly divided into four parts : (1) time in early Indian philosophy, (2) time according to the grammarians, (3) time according to the Buddhists, and (4) time in Nyāya-Vaiśeṣika system.

To begin with the conception of time in ancient Indian thought is briefly traced. There is mention of time in the *Vedas, Upaniṣads* and *Purāṇas.* One important characteristic of this period is to treat time to be fundamental and very important in the process of evolution. Sometimes time is made to occupy a place above everything else, even above God.

Grammarian, Buddhists and the Nyāya-Vaiśeṣika thinkers deal with time in a more systematic manners. According to the grammarians, *Śabda Brahman* or the Eternal Verbum is the ultimate reality. Time is a power (*śakti*) of the Eternal Verbum. They call it *kāla-śakti.* Though it is a power of the Eternal Verbum. Time should not be considered something different from the ultimate reality, for, the grammarians are essentially monists. So time is identical with the Eternal Verbum. In the precess of creation or evolution, *Śabda Brahman* is the material cause and *kāla-śakti* regulates and determines all things of the phenomenal world.

The Buddhists hold that time is a mental construct out of the point-instants. They say that time is unreal, a mere name and as such cannot be a quality.

According to the Nyāya-Vaiśeṣika thinkers, time is real. It is one of the ultimate *dravyas.* It is a non-material substance. That time is a substance is obtained by inference which is based on

their conception of causality. It is objective, concrete and indivisible.

By way of a brief evaluation, the views of these schools are compared and contrasted with the views of other writers in Indian Philosophy. These views are also compared with those of the Western thinkers.

Grammarians' notion of time is analogous to that of Bergson with regard to the role of time in the process of evolution. But there are fundamental differences between the two. For example, the identification of time and change found in the philosophy of Bergson is absent from the Grammar School. Moreover, the notion of God is quite alien to Bengson's philosophy, which notion is fundamental for the Grammarians.

Passing on to the Buddhistic notion of time, the place of change in this system is comparatively studied with that of Bergson and has been found to be different.

Likewise, the arguments for the unreality of time when compared with those of Bradley are found to be diametrically opposed. If the point-instants of Buddhists are accepted, Bradley's arguments disappear.

There are certain points of similarity between the Nyāya-Vaiśeṣika and the Kantian views on time. Here again there is a fundamental difference between the two as time is a *dravya* (substance) according to the former; whereas time is only a "form" according to the latter. Even following the argument of the Nyāya-Vaiśeṣikas, time is not necessarily proved to be a substance.

In conclusion we might say that the various schools of Indian thought have as much diversified notions of time as their metaphysics.

Kāli as a Metaphysical Concept in the Krama System of Kashmir Śaivism

Navjivan Rastogi

The Krama system is a sister development of the monistic trend of Kashmir Śaivism known as Trika or Pratyabhijñā. The Krama system is predominantly mystical in tone. It posits *kālī* or *kāla-saṃkarṣiṇī* as the ultimate principle and the highest category of experience.

The concept of kālī in this system directly refers to the notion of kāla (time) which is synonymous with that of *krama* (succession). kāla as krama furnishes a logical background for the metaphysics of *kālī*.

The identification of *kālī* with *kāla-śakti* in *krama* texts suggests that the concept of the ultimate in this system was influenced by that of time-force (*kāla-śakti*) in Bhartṛhari's system. According to Bhartṛhari, *kāla-śakti,* the most fundamental of the Lord's power, is the sole source of empirical phenomena of succession involving all categories of experience. Hence, it is designed as *krama-śakti* also. In Trika too *kāla-śakti* is poised for bringing out the multifarious phenomena, though it is a narrower concept that is predecessor. Similarly, in *krama* the duality is conceptual and is occasioned by the ultimate dynamicity known as *kālī.*

The entire metaphysics of *kālī* revolves round the twin concepts of *kāla* and *kalana*, the latter being more fundamental. The following significations of the word '*kālī*' have been taken into account. The word '*kalana*' (as well as '*kālī*') is traced to root '*kāla*' which is used in five senses, namely, (i) throwing out (*kṣepa*), (ii) apprehension (*jñāna*), (iii) acquisition (*prāpti*), (iv) counting

(*saṃkhyāna*) and (v) sound (*śabda*). Each word here represents a technical concept.

(i) The external emanation of self is *kṣepa*. Realization of unity of the world, thus manifested, with itself is *jñāna*. *Saṃkhyāna* means providing a clear cut connotation of every category of experience. *Gati* or *prāpti* is the attainment of one's essential nature consequent upon the solution of logical distinction between the self and the manifested order. Once this plurality disappears, the self-consciousness alone subsists there in its own right. This is *śabda* because it can express the indeterminate matrix in its totality. The ultimate earns the name of *kālī* or *kāla-saṃkarṣiṇī* for its essential dynamism that effects all the five sorts of *kalana*.

(ii) *Kālī* is so known because it is responsible for the outward manifestation of the temporal phenomena.

(iii) The two parallel lines of spape and time known as *deśādhvan* and *kālādhvan* originate from *kālī*.

(iv) It is called *kāla-saṃkarṣaṇī* because it always appears eager to annihilate kāla. This process is technically called *Kālagrāsa*.

A few other explanations have also been considered and their metaphysical implications brought to light.

Kāla-Saṃkarṣiṇī is perfect consciousness. It is responsible for manifesting two triads constituted by the transcendent, transcendent-cum-empirical aspects comprehending the entire world of our discourse. As such it is untarnished by the formal categories of subject etc. It is the prius of all logical constructions that are essentially identical with itself. It is said to discharge two functions, namely, exhibition of difference within itself and display of causal potency underlying the fine acts of the ultimate dynamism.

In view of the metaphysical peripheries of our problem, *kālī's* equation with *śuddhā vidyā* (pure consciousness) is significant. This suggests that *kāla-saṃkarṣiṇī* is nothing but experience, pure and simple.

Kālī as *anākhyā* (indefinable) is a supra-sequential principle that even curbs the tendency for the rise of time constructions.

It is a realm of absolute unity in which all diversity and opposites lay in perfect unison. Here, Jayaratha, the author of the *Viveka* on *Tantrāloka*, draws our attention to a controversy obtaining between the two sub-schools of the system. He concludes that there is no basic difference between them excepting that one theory is difference-oriented, while the other is identity-oriented.

Kālī as *māhābhairava-caṇḍograghorakālī* stands for the ontological unity of the categories of experience.

Rudra-raudreśvarī is another name given to kālī in mystic parlance. This term denotes that kālī comes to be deemed as 'rest' because the process of gradual elimination of succession and determinacy is finally completed here. Kālī as the seventeenth aspect (*kalā*) refers to the ontological synthetic activity of Godhead. This is the reason as to why it is called a *yāmala* principle.

A close look into various tantric lores reveals quite a few revealing parallelisms, including Buddhist tantrism. It appears that all the tantric sects were interknitted by a close affinity of theses and themes. This offers a remarkable field for future research. While concluding, it has been shown how a peep into the *krama* concept of kālī brings the student to the threshold of an interesting phase of the history of Indian philosophy.

Metaphysics of Time in Indian Philosophy and its Relevance to Particle Science

Ruth Reyna

I. Prolegomena

An understanding of the nature of time and its pertinence to the life of man is essential to the approach of a fairly adequate philosophic vision of reality. The notion of time is commonly taken for granted within the confines of a given tradition and civilization, and its validity is seldom discussed or questioned even by those who sharply disagree on other issues. Time appears to be inevitable, colorless and unimportant as we are carried along with it through the inexorable flow of our terminal existence, yet Time is the relentless ogre that adamantly points the way to death and annihilation. Time, it seems is an inalienable feature of the world of our common experience, and yet philosophic insight discloses the essential timelessness of the real. Philosophy not only aims at transcending the limitations of time in respect to its subjective vision, but it is also inspired by the conviction that ultimate reality in its deepest essence must be nontemporal. Our knowledge takes its start in time but it aims almost from its inception at probing beyond the limits of the temporal in its search for the Infinite and the Eternal.

It is, therefore, only natural that considerations and analyses of time should have prominence in all philosophical discussions. But whether philosophers could arrive at a mutually acceptable definition of time is open to doubt. Perhaps a basic definition would be that of Aristotle when, in *Physics*, he says, "Time is the number relative to a movement when one considers the latter as presenting a part that precedes and a part that follows" (iv, II.). As commonplace and logical as this explanation may seem to be, Aristotle admitted that the idea of time had its origin in the mind of man. Professor Samuel Alexander attempted to corrolate time with space and to put both in a space-time continuum and to fling it into motion, declaring the packaged concept to be the absolute "stuff of which things are made". As a "single vast entity" the substratum of all that is, bound together by motion, it may be quite empty of historical events or sentient beings or objects, yet they are always full — "Space being full of Time and Time being full of Space"[1] — whatever that may mean, it seems to serve no practical purpose. And if time is considered a vehicle for extension as some say it does, then we would have to agree with Bradley that extension cannot be thought of "without thinking at the same time

'what' is extended",[2] and we would have to observe that thinking of "what" presupposes a knowledge, a conception, or an intuition of time in which to place the "what".

Among the many categories of time there is the subjective time on the one hand in which man experiences the quickening or slowing of time in accordance with his mental mood, an inward time-rod of the human mind to measure the three dimensions into which the human intellect extends — past, present, and future — and which in their chronology constitute the present moment. On the other hand there is the objective time, the empirical time, the measurable period during which we carry on the work of society in an orderly manner. The physicist also has a concept of time which he treats as a presupposition not subject to the analysis of science. But whether it is empirical time, man's time, or physical time, that of science, or whether it is the time of the deity in his act of unique creation, we would have to say with Whitehead that "it is impossible to meditate on time and the mystery of the creative passage of nature without an overwhelming emotion at the limitations of human intelligence".[3]

The mathematician, the philosopher, the physicist, the logician, the theologian, attempts to translate the psychological description of time into the language of his art. But one cannot constrain the Oriental conceptions of time into the delimitating frames familiar to the West. Questions of methodology and interpretation which will inevitably arise as we attempt to unfold the Indian concepts of time, we shall deal with as they come. The basic conceptions and scales of value of the Indian tradition, so utterly different from the West, cannot be exposed at the outset. Their profound metaphysics must be permitted to reveal the enigmas of existence and of man, which the limitations of the West have barred the way to understanding. The time conceptions of India will at first seem to those of the West unsound and bizarre.

Vasiliev enunciates the thought of the West when he remarks, "... in the widest sense Time is the interval of the natural order of the universe".[4] But in "timeless" India this vast time-consciousness transcends the brief span of the individual: even the racial biography is the time-consciousness of Nature herself. Nature recognizes not centuries but ages — geological, astronomical ages — and stands, furthermore beyond them. It is these extensive diastoles that give the life-rhythm of all thought. The wheel of birth, life, death and rebirth, the round of emanation, fruition, dissolution, re-emanation, is a fundamental theme of Indian philosophy, myth and symbol, of Indian religion, politics, and art.[5] The inexorable wheel of samsara — of existential being — is understood to apply not only to the life of the individual, but to the history of human society and to the course of the cosmos. Every moment of existence, every round of life, is measured and judged in the sway of this cosmic chronometry.

In the West the history of man is characterized by the interplay of two opposing philosophies of time, the one aiming at the elimination of time and the other contending that time is ultimate and irreducible. But India has no such struggle with rival time concepts. As the inimitable Heinrich Zimmer puts it:

> Swarming egos are her children, but the species is her concern; and world ages are her shortest span for the various species that she puts forth and permits, finally to die ... India — as life brooding on itself — thinks of the problem of time in periods comparable to those of astronomy, geology, and paleontology.[6]

That is to say, India thinks of time and herself in biological terms, in terms of the species, and not of the ephemeral ego.

The great Greek historians investigated and described the history of their times, but the history of the universe they considered as a natural process in which everything recurred in periodic circles, so that nothing really new ever happened. This is precisely the idea of time underlying the Indian philosophy of World Cycles; the history of the universe in its periodic passage from evolution to dissolution is conceived as a process of gradual and relentless deterioration, disintegration and decay, not unlike the "Time's Arrow" conceived by Sir Arthur Eddington in his explanation of the process of world entropy.

Only after all phenomena has run its course into total dissolution and has been re-incubated in the boundlessness of the timeless cosmic Unity, does the universe reappear. Whereupon, immediately, with the first movement of cosmic energy, the first stroke of time, the irreversible process begins anew. Whereas the emanations and dissolutions of the World Cycles revolve with a cold and seemingly ruthless impersonalism that reduces to virtual nonreality the great realm of human existential sorrows, nonetheless strange and magnificent histories take place that are warmly sympathetic to the life-illusion.

II. Time and the Real

in Indian philosophy the dominance of idealistic thought, the tendency toward the monistic explanation of the Real eclipses the schools of realism and of materialism, of logic and of theology. The Indian philosophical tradition insists on the intuition of an indescribable, indeterminate and supra-rational Absolute (or, as in Hinduism, Brahman); and however systems differ, they must agree on this point. For all schools of Indian thought — exclusive of the extinct school of materialism (Carvaka) and inclusive of Jainism and the teachings of Gautama, the Buddha — the Absolute *is* Reality and there is nothing other than It. However much they may persuade themselves that they differ from the traditional Vedantic Brahman, in final analysis all trickle back into the nondifferentiated, nondual Absolute.

Even the pluralistic realism of the non-orthodox Jainas posits a reality that may, upon serious comparative reflection, be construed as the Brahmanic Absolute, as we shall attempt to point out, although the Jainas claim they do not take their beginnings from the Indo-Aryan (Vedic) contexts. But we should have no prejudices on that score, for an eternal Truth is never the unique property of any one sect, civilization, or ethnic group. And in reference to the teachings of Lord Buddha, which in the past have been looked upon by Hindu philosophers as not in consonance with the orthodox tradition, are now held by modern scholars to imply Buddha's acceptance of the Brahman thesis.[7] This idea has evolved from the fact Gautama Buddha, a man of few words, disclaimed only what he did not believe in, and since he remained silent on the question of the Brahmanic Absolute, neither denying nor affirming it, for "whereof one cannot speak, thereof one must be silent", scholars are led to infer that he accepted this basic and all-important metaphysical concept of Hinduism.[8]

The dominance of this concept of the attributeless, non-dual Absolute which is Pure Consciousness, standing aloof and unconcerned with the world, having no dependence upon the world for being — timeless, spaceless, "not this not that" (*neti-neti*), poses the problem for philosophy of disposing of Time which every being understands as an integral part of his self-conscious life, a practical something that cannot be made to vanish at the wave of an intellectual wand, for the psychological process occurs in Time and space.

For the Jainas, Time (*kāla*) is real but non-spatial. It is a quasi-substance that does not enjoy extension for it is an allpervading form of the universe on which are strung the successive movements of the world. Jain writers distinguished between *real* time and empirical or conventional time. Continuity or duration is the mark of real time — not a summation of a series of discontinuous changes, but a process of persistence, an enduring from past into the present, whereas changes of all kinds are the distinguishing characteristics of empirical time. It is the latter which is conventionally divided into moments, hours, days, etc., and is limited by a beginning and an end. But real time is formless and eternal, inferred though not perceived, such duration implies moments of time in which existence is prolonged. By imposing limitations and distinctions on real time, empirical time is produced.

The existential individual for the Jaina is *jīva* or a living, conscious substance called a soul. The soul is inherently perfect and has infinite potentiality within, but, unfortunately, there are obstacles constituted of matter-particles which infect the soul and overpower its natural qualities. In other words, the limitations that we find in any individual soul are due to the material body with which the soul has identified itself, and the whole object of Jaina metaphysics is to stop the influx of new matter into the soul as well as the complete elimination of the matter with which the soul has already become mingled. When this freeing of the *jīva* from matter has been accomplished through various prescriptive practices, the *jīva* or soul becomes eternally "free" to enjoy "infinite knowledge, infinite faith, infinite power, and infinite bliss" never again to be born into the travail of existential time.

The Jain doctrine ends here, but in its curtailment there lies a disparity between fact and principle. When one considers the real as taught by Jainism is the society of liberated *jīvas*, all in a final and lasting state of quiescence, one can only conclude that they are assimilated into Pure Consciousness. This, then, is a metaphysical principle and unless we look upon time as a metaphysical principle, which we cannot do owing to the fact that time is of *experience*, we cannot fit the two together, for it does not seem possible to think of time as metaphysical. So we shall have to submit that the liberated *jīvas* are beyond time, either real or empirical, and that should place them in the category of the Timeless Absolute, for "the separateness and individuality of a *jīva* is only from the point of view of *vyavahāra*, or experience ... truly speaking, the essence of all jīvas is consciousness".[8a] Plurality of souls, therefore, is a relative conception that, when reflection by imperfect abstraction reduces the subject to a finite mind conditioned by sensations of an organism with a particular location in space and time, we get the idea of the independence of the *jīvas*. To use the famous expression of the great Advaitin, Śaṅkarācharya, we have the doctrine of the plurality of *jīvas* as long as we treat the subject as an object which can be scrutinized. If we follow the implications of thought and disentangle the subject from embodiment in sensation and feeling, free it from all contact with the object,

we shall see that there is only one subject in reality.[9] And this one subject is, for the traditional schools, the Non-dual Brahman. Jainism did not choose to realize this height and so its teachings fall just short of absorption into the timeless Absolute of Vedãnta.

Inherent in Guatama Buddha's theory of reality are twin concepts of time — consciousness as flux and flow and a longer duration yet eventual impermanence of the material body. His was a philosophy of dynamism, and although formulated some 2,500 years ago, is being recreated for us by the discoveries of modern science and the adventures of modern thought. The particle theory of matter has brought about a revolution in the general concept of the nature of reality. It is no more static stuff but radiant energy. Impressed by the transitoriness and ceaseless mutation and transformation of the world, Buddha formulated a philosophy of change. He reduces substances, souls, things — all that is — to forces, movements, sequences and processes and adopts a dynamic conception of reality. For Buddha life is nothing but a series of manifestations of becomings and extinctions, a stream of becoming in which the world of sense and science is from moment to moment. Whatever is the duration of any state of being, be it brief as a flash of lightning or as long as a hundred eons, all is becoming.

All schools of Buddhism are agreed that there is nothing either human or divine that is permanent, and the two schools of Hīnayāna and Mahāyāna into which Buddhism split itself, both entertain the theory of momentariness. At every moment everything is changing into something else and identity is only an illusion. Even the self is looked upon as a continuous succession of ideas.

Buddha holds that only consciousness is momentary and not matter, for he says, "It is evident that the body lasts one year ... a hundred years and even more. But that which is called mind, intellect, consciousness, keeps up an incessant round by day and night, of perishing as one thing and springing up as another".[10] Change, then, is the substratum of reality — the transmitting of force, a stream of becoming, a flux of particles that are themselves ephemeral. But Buddha, also, like the Vedãntic sages, pulls in the thread of time and dissolves it along with all other phenomenal conceptions in *Nirvãna*, the silent beyond, which is none other than the Timeless Absolute of the Advaita Vedãnta.[11]

III. The Concept of No-Time in Advaita Vedãnta

The special problem of Advaita (Non-dual) Vedãnta is the reconcilement of existential man— man in time — with the timeless undifferentiated non-dual Brahman which he knows himself to be in Self-Realization. The Vedãntic Absolute, or Brahman, although having no connection with the world, must be understood as the ultimate presupposition of the world, but not, however, as *presupposing* the world. Some hold that the Brahman is the efficient and material cause of all phenomena, but Brahman is not the cause of the world in the sense in which we understand the word as 'cause and effect'. In fact, the question of 'cause' cannot be raised here for the reason that the Brahman, as it is beyond time, could not have worked in time, whether as material or efficient cause inasmuch as every cause in the universe must work in

time. The deductions from the transcendental are considerations that inspired Kant to assert that the application of the categories of our understanding to the noumena ends in antinomies that create the illusion of reason.

The paradox of beholding the transcendental ideal as the ultimate presupposition of the world is, for the Advaitin, only seeming. It is a mystery that man, in this finite intelligence, is unable to know. It is that mysterious power (termed *māyā*) of the Ultimate One that is both projecting, causing the homogeneous unity of the Absolute to appear as many, and the veiling power causes man to mistakenly take the many for the real.

But this is not a permanent arrangement that man cannot ultimately break through. With a disciplined mind and a sharpening of his intuitive powers which can be brought about by the earnest practice of discrimination — delineating the Real (the Self) from the non-real (the not-Self) — and application to the understanding of this mystery, one can experience Self-Realization.

Self-Realization in the Advaita context is to say that man realizes that he *is* the Absolute, the Brahman, and all he had visioned as phenomenal and multiple has no ultimate reality. Yet, as existential man, he had erroneously believed that the phenomenal world was real and he acted upon this premise in spite of its unrealness. Śaṅkarācharya, the great 8th century exponent of Advaita Vedānta, puts it this way: the world is neither real nor is it unreal and at the level of Brahman it is non-existent; even *māyā* at that level is nonreal. Thus he allows man to function pragmatically in time as though the world were real, and insists that man must perform all the duties of this society as long as he cognizes the world as real, however mistakenly he may do so. Śaṅkara argues that it is impossible for us to know the Self (Brahman) by means of thought, since thought itself is a part of the flux belonging to the region of the not-Self, hence we must appeal to intuition, a circumvention of the intellect, if we are to *realize* (not merely to *know*) Brahman.

Self-Realization — the Self-Knowledge — the realization that all is Brahman, Pure Consciousness, undifferentiated, and without attributes that may be cognized by finite man, the realization that I, too, am It, is not arrived at "step by step" through a passage of time as through a specific course of study as one aims at a desired end. It is not the attainment of a good such as the acquisition of an estate or a heritage. Self-Realization is not an acquisition of any sort, but it is a *change of viewpoint*. When one realizes himself as Brahman he views all from the level of Brahman and then it is that existential life, time, space, God, and the saints — all the concepts that man has devised to carry on his society — disappear, for now he enjoys the nonentity, the peace of the dissolution of self-consciousness with all its opposites into the Primal Field of Pure Consciousness where there is no subject-object dichotomy to bring about tensions. No longer is he plagued with the veil of *avidyā* (ignorance) for Brahman *is* Knowledge — Knowledge is Its essence and not its property. Brahman is That of which we are not a part, for It has no parts, but which we are It. *Tat tvam asi* (That thou art) declares the Upanishad.[12]

The aim of the doctrine of Advaita philosophy is to transcend the limits of the individual consciousness. By dissolving his ego the Indian equates himself with God, transcends God and is at peace in the knowledge of himself as Brahman; it is the basic identity of the individual

personality with the Universal Self. In Brahmaṇ-vidyā (Realization)) time comes to a stop; distinctions and divisions vanish. If the Self-Realized were to look again for his own nature he would have to ask himself, "Where is anything that has ever been? where anything that will ever come to be in the future? where is what is existing at the present moment? where is space-location (*deśa*), where, indeed, is the Eternal Essence (*nityam*), when I abide in the glory of my own greatness?"[13]

Past, present and future belong to transitory beings. Time is a becoming and vanishing, the background and element of the transient, the receptacle and content of the psychological processes and the changing, ephemeral objects of experience. Aristotle, puzzled by the problem of Time's triple structure — past, present, and future — comes to the conclusion that Time must be a nonentity, and he remarks that "time either does not exist at all, or barely, and in an obscure way ... for what is 'now' is not a part; a part is a measure of the whole, which must be made up of parts. Time, on the other hand, is not held to be made up of 'nows'".[14]

Reality in the view of Advaita is truly timeless — timeless not in the sense of endless duration, but in the sense of completeness, requiring neither a before nor an after. Time and space, however, are categories of our individual, limited consciousness, the most basic frames of our human perception and conception; they do not apply to the transcendent Absolute. What appears to the human mind as a sequence or gradation of states proceeding from the normal individual consciousness to the experience of the highest Self, is not a sequence at all from the standpoint of the Absolute. As with Kant in his *Critique of Pure Reason*, time is diagnosed as belonging to the phenomenal sphere, the realm of our subjective human experiences, not that of "things as they are in themselves". And it is from this point that Schopenhauer, in *The World as Will and Representation*, takes his start when he seeks to blend Kant's theoretical criticism with the transcendental wisdom of Indian metaphysics.

While Śaṅkara agrees with the Buddhist view that all things change, he demands a supersensible reality which is not within the world of change. As Descartes contends, the conception of an infinitely perfect being is assumed in the admission of one's own finitude.[15]

Of the Transcendental Reality Śaṅkara says, to say that Brahman is Reality is to say that it is different from the phenomenal, the spatial, the temporal and the sensible.[16] Brahman is what is assumed as foundational, though it is in no sense substance. It is not a cause, for that would be to introduce relations.[17] It is the "wholly other" but not nonbeing.[18] Brahman is not eternal in the sense of persisting changelessly through time like the motionless being of Parmenides, or the "mindless, unmoving picture", which Plato deprecates in the *Sophist*, but in the sense of absolute timelessness and incorruptibility. It is eternal because its completeness and perfection are unrelated to time.

Śaṅkara takes up the principles of experience and declares that whatever is bound by space and time and causality, cannot be real. Our experience has space for its general form, but the real is non-spatial and, therefore, indivisible; and his dialectic goes: for whatever is spatial is divisible and this latter is always a produced effect and not a reality which is unproduced and indivisible, and thus it is also non-spatial. Time is real within the world of experience; within the world of experience time has universal extension, but the unending duration of the world is not self-sufficient. The temporal, he concludes, is not the real.[19]

It is this astounding truth that time evaporates into unreality and Timelessness may be envisioned as the Real, not by action or introspection, not by activity of reason or logical progression, but merely by change of one's viewpoint, that spells the uniqueness of Advaita.

IV. World Cycles

The creation of the world as a discrete act in time has little sanction in the philosophical teachings of India. For the Jainas, matter is eternal, and they, as also the Buddhists, are not concerned with its beginning or "first cause". Sāṁkhya posits an eternal (primordial) matter (*prakriti*) which, when connected with the individual conscious principle (*purusha*), accounts for the evolution of the universe. But once the universe is evolved there begins its deterioration back into the two separate components of *purusha* and *prakriti*, and it is this separation of the *purusha* from *prakriti* that constitutes the Sāṁkhya concept of salvation. The deterioration and re-emanation of the cosmic order manifests itself through the slow but irreversible passage of the four yugas (World Cycles).

The notion that there is nothing static, nothing lasting, but only the flow of relentless process, with everything originating, maturing, decaying, vanishing — this wholy dynamic view of phenomena and the individual whose destiny is inevitably bound up with the fortunes of the universe — is one of the fundamental conceptions of later Hinduism. It is easy to forget that our strictly linear, evolutionary idea of time is something peculiar to modern man. Even the Greeks of the days of Plato and Aristotle, who were closer to the Hindus in thought and feeling than they were to the modern Western concepts, did not espouse this idea of time. Saint Augustine, it seems, was the first to conceive of the current notion of time as the antithesis of eternity, the dogma of the beginning of time at the act of creation. "Human life to Augustine", Erich Frank declares in a paper written for the Augustinian Society, "was not merely a process of nature. It was a unique, unrepeatable phenomenon; it had an individual history in which everything that happened was new and had never been before". In his article Frank points out that both Aristotle and Plato maintained that every art and science had many times before developed its apogee and then perished, that "these philosophers believed even their own ideas were only the rediscovery of thoughts which had been known to the philosophers of previous periods".[20]

This belief corresponds precisely to the Indian tradition of a perennial philosophy, an ageless wisdom revealed and re-revealed through the cycle of the ages. To the Hindu the Vedas are eternal wisdom and contain the timeless rules of all created existence. While the significance of the Vedas is eternal, the texts themselves are not, since they are reuttered by Īśvara (the personal God) who appears in each world age. The idea of the eternality of the Vedas can be reconciled to the Advaitic view of non-duality in that, as a collection of texts they begin to exist at each new creation and cease to exist at the universal dissolution of things. They are said to embody the ideal form of the universe, and since the successive worlds have their constant form, the authoritativeness of the Vedas are constantly maintained in each successive

world-epoch. The archetypal forms, however, are not eternal in the sense in which the Ultimate Reality is eternal, and they vanish with all else at the level of Brahman for they, too, are the products of cosmic ignorance (*avidyā*).

According to Hindu tradition, the progress and decline of every *kalpa** (world cycle) is marked by mythological events that recur similarly every four billion three hundred and twenty million years — the duration of each world cycle. This may seem wholly consuming to the short-lived human individual and as such may be temporarily disregarded. But it cannot be totally dismissed, for in the rounds of his reincarnations he remains involved under one mask or another throughout the entire course of the protracted span. As we have said before, man must share the fate of his universe. For the Western mind which believes in single, epoch-making historical events, this prodigious recurring of a resurrected world, this process of continuous history of the world organism, may be completely beyond his comprehension, or at least outside his acceptance, since it nullifies his conceptions of values that are intrinsic to his estimation of man and his destiny.

A world cycle, which is measured as the lifetime of a Brahmā (creator God), from the human standpoint seems to be very lengthy; it is, nonetheless, limited. It endures for only one hundred Brahmā years of Brahmā days and nights; then vanish not only the visible worlds but all spheres of being both subtle and gross. All become resolved into the divine, primeval Substance. A state of total reabsorption, of quiescent energy then prevails for another Brahmā century, after which the entire cycle of 311,040,000,000,000 human years begin anew.

But whether we look at it from the viewpoint of the Jain, liberation of the *jīva* as an eternal, quiescent state, or Sāṁkhya with the primal prakriti in dormant wait to be enlivened by *purusha*; whether we see it through the eyes of the great Aurobindo who proposed an involutionary-evolutionary process to human existence, or whether we accept the *kalpas*** and mythology of the Hindu — the pattern is the same. It is the pattern of emanation, growth, deterioration, and seepage back into the homogeneous field of cosmic energy, then re-emanation, re-creation, when Time begins ever anew at the stirring of the atoms.

This world entropy is best illustrated by the representation of the dancing Shiva, who, as the destroyer God, crushes the dwarf (cosmic ignorance) destroying the world metaphysically, and then actually resolving the world, the universe and all sentient beings into the primal field of energy or Pure Consciousness. The great Lord Shiva waits patiently to begin his dance all over again, giving motion to the atoms, flinging them into forms — and thus, to re-creation in another world era.

* A cycle of time; a period of created being after which all beings in the universe depart from their bodies into a state of suspended being. After a period of absolute nullity and repose (*pralaya*) the world comes again into being and another *kalpa* proceeds on its irreversible cycle with history generally repeating itself over and again.

"At the approach of the day all manifest objects come forth from the unmanifested, and at the approach of the night they merge again into that which is called the unmanifested." *Bhagavad-gita*, VIII. 18.

** The Jainas, also, teach a theory of the cycle of Time. The present "descending" (*avasarpinī*) period was preceded and will be followed by an "ascending" (*utsarpinī*). *Sarpinī* suggests the creeping movement of a serpent (*sarpin*). The serpent-cycle of time (the world-confining serpent, biting its own tail) will go on revolving through these alternating "ascending" and "descending" periods forever.

V. As Postulate of Science

Time, in the traditional Indian concept, takes on a strictly scientific character in its aspect of entropic measurement. No school of Hindu thought cares to forsake the time-worn theory of cycles or alternating cosmic periods of creation and destruction.[21] Likewise, the atomic make-up of the universe is espoused in general by Indian philosophical thought. So it is upon these premisses that we can safely launch our discussion of time in its relevance to particle physics.

It is redundant to point up too meticulously the application of the second law of thermodynamics (that of irreversibility) and the resultant thermo-equilibrium to which all phenomena tends, for it is more than evident in the world-cycle process as described in the teachings and texts of the various Indian *Darshanas*. We may not particularly relish the thought of this irreversible entropic phenomenon that sweeps our world along, as well as each individual in it, from order to disorder, from thermal differences exhibited by self-consciousness to an eventual thermal homogeneity.[22] It may be difficult for us to accept that the universe as we conceive it will at some time be dissipated into a state of quiescent pure consciousness where there will be no human mind to comprehend it — a state, Eddington says, "that is necessarily a state of death, so that no consciousness will be present to provide an alternative to 'time's arrow' ".[23] Time will cease, for it will no longer be a factor of existential necessity. Yet, whether we relish the idea or not, Indian philosophy makes bold its announcement of the eventual thermo-dissolution of our world.

In turning to science it is not difficult to bring the Indian metaphysics of time to a focus. According to the Einsteinian field theory, all that constitutes the phenomenal world with its sentient beings is energy or force, the primal field from which all phenomena arises. "The properties of field alone", he tells us, "appear to be essential for the description of phenomena".[24] And in denying the classical dualism, the two-substance theory, that of matter *and* energy, Einstein points out determinedly that "there is no essential distinction between mass and energy ..."[25] "... matter represents vast stores of energy and energy represents matter".[26] In this, his theory of mass-energy-interchange, Einstein reveals that mass, or matter, is energy "congealed" and energy is mass or matter dispersed or thinned out.[27] It appears, then, that the difference between matter and field is a quantitative rather than a qualitative one, and there is no sense in regarding matter and energy as two qualities different from each other.[28]

It is also agreed among both scientists and philosophers that consciousness is energy and only becomes self-consciousness when the individual mass (sentient being) recognizes himself as separate from other masses. The primal field of energy is, therefore, for science as well as metaphysics, pure consciousness without subject or object distinction and from which we derive sentience. But this seeming twentieth century postulate of field was propounded by the Indian sages as long ago as the ancient Vedas in their pronouncement of the monistic make-up[29] of reality, and which was brought to fruition in the Advaita teaching of the Non-dual Brahman, Advaitins describing it as Pure Consciousness.

Prakriti, the primal virgin matter, propounded by Sāṁkhya, on which no change, transformation, or evolution has yet been brought to pass, is, I submit, none other than the primal

field of energy known to particle science; and Purusha, which is defined as nonmatter or "pure spirit" (*caitanya*) may be the motion that sets the energy into forming masses of different densities to which the human mind assigns forms. The act of disturbing the equilibrium from its dormant state of non-manifestation takes place through time. The category of time is described as the agency needed for the formation of the world, yet time is not motion. Motion and time are simultaneous, motion becoming time only when it has been measured, when it passes along the measuring rod of emanation and the subsequent and inevitable time-rod. Without emanation, maturation and disintegration there is no time. For the Quiescent state there is no time measurement. Time appears only at the stirring of the atoms into their new creative configurations.

Likewise, the Jain theory of release which is the restitution of the life-monad to its innate Ideal state, can be constructed as the final thermodynamic equilibrium to which all matter tends — an adiabatic state in which the particles of energy are in near inertia and are thus incapable of precipitating into densities or patterns described as matter.

VI. Conclusion

We have described at length the world-cycles, the recurring eons of emanations, maturation and the thermo-playing out or disintegration of the worlds into temporary and quiescent equilibrium. Let us now turn to man himself, a unique formation of the cosmic energy embodying frame, thought, imagery, memory, and hope. "The entire universe is weighted toward rhythm", one writer tells us, "everywhere, as in a cosmic dance, natural bodies are doing their rounds ... the universe is littered with clocks".[30] Man, too, is an integral part of this cosmic dance of particles for he, like all other phenomenal objects, has arisen from the same basic field of energy, and there is no reason why he should be an exception to the way his world is going.

The traditional Indian philosophy teaches a theory consonant with this entropic movement postulated by modern science. The sentient being, Vedānta maintains, is made up of five layers of matter in various degrees of density, ranging from the gross physical sheath[31] which is the outermost and cognizable, to the innermost or finest matter which is the spiritual sheath. At the dissipation of the fifth or innermost sheath the entity realizes Pure Consciousness. In other words, man is, in finality, identified with the Ground of Being which is tantamount to the homogeneous field of force or energy as we know it in particle science.

This is only what biological science is presently holding — that ageing and death is no more than the consistent loss of energy from each living cell, a miniature entropic phenomenon that levels it eventually to the homogeneous equilibrium to which the entire universe is tending.[32] However, dissipation into the field of force or energy or Pure Consciousness as the end of man, should not be difficult to accept. His survival lies in the re-using of the energy that composes him to formulate other "creations" in succeeding world eras. Philosophers, theologians and laymen will cry out against this cold impersonalism. But is this thought so un-

aesthetic? Is it so ugly to believe that we who have elected to fashion our world from what our science tells us is a field of cosmic force, cannot sustain it forever, but must revert with it to a final equilibrium — to one common cosmic ground? Surely, there can be little objection to surviving, as Alfred North Whitehead puts it, as "an eternal value".

In the short span of the life-time of a man, or even of man, the magnitude of world-cycles, of life billions of years ago and billions of years hence, cannot be fully comprehended, for the human specious present is the only time-unit that we directly experience with any pragmatic application. But the Vedic sages had cosmic insight which modern man lacks and greater spiritual stamina than modern man cares to acquire and their's was the vision not of the present, but of the past, present, future, simultaneity, and No-Time, and from their utterances we can see the foreshadowing of our present science. In defense of antiquity which appears more scientifically perspicuous than our present physical science, we have to say that because the sages did not speak of the atom in terms of electrons, neutrons and X-minus hyperons, because they did not describe the resolution of all phenomena, including man into Pure Consciousness or the Absolute, in terms of entropy and thermo-equilibrium, does not make their postulates less scientific. Semantics alone can never change the character of the real.

In the traditional Indian teaching of Self-Realization, this Non-duality as the Ultimate Real, negates the realness of history as the recounting of the objective course of events which have run their course in time, and designates the past, present, and future as the prerogatives of transitory beings. It is only the Self-Realized that rises beyond the existential, beyond the confining touch of time. But in Self-Realization time is not left behind, for it, too, along with all their constructs of the human mind is consumed at the level of Brahman. As Shakespeare says, "And time, that takes survey of all the world, must have a stop".

Finally, I wish to point out that, although I have mentioned Brahman — the Absolute — in terms of Pure Consciousness or thermodynamic equilibrium, I am not, as some of my critics would have it, "reducing Brahman to science and science to metaphysics". I say only, that particle science is the practical application of the metaphysics of Vedānta. Yet, upon second thought, science, in seeking the real which underlies the world of appearance in the mysterious, unknowable sub-atomic world, is dabbling in metaphysics, and there seems no wrong to proposing that science has gleaned its theories and our world from out of the Primal Field of energy or force (none other than the Vedāntic Absolute) which it admits as the only real substratum of this world of things.

1 *Space, Time and Deity*, Bk. 1, Chap. 1.
2 *Appearance and Reality*, p. 17.
3 *The Concept of Nature*, Chap. III.
4 As quoted in, Dora Marsden, *The Philosophy of Time*, Oxford, The Holywell Press Ltd., 1955, p. 17.
5 Condensed from, Heinrich Zimmer, *Myths and Symbols in Indian Art and Civilization*, ed., Joseph Campbell, Bollingen Series VI, New York, Pantheon Books Inc., 3rd printing, 1953, *passim*.
6 *Ibid.*, p. 21.

7 Cp. Rabindranath Tagore: "This dharma [of Buddha] and the Brahman of the Upanishads are essentially the same ...", *Viśvabhāratī Quarterly*, 1924, p. 385.
Aurobindo Ghosh: "The ideal of nirvāna was only a negative and exclusive statement of the highest Vedantic experience" (*Arya*, vi., p. 101).
8 Radhakrishnan: "... nowhere did Buddha repudiate the Upanishad conception of Brahman, the absolute". *Indian Philosophy*, Vol. I., London, Allen and Unwin, Seventh Imp., 1962, p. 682.
8a Quoted in Radhakrishnan, *op. cit.*, p. 337.
9 *Ibid.*
10 *Samyutta*, ii, 96.
11 Cp. Aurobindo Ghosh, note 7: also, Keith, *Buddhist Philosophy*, pp. 63—64.
12 *Chhândogya Upanishad*, VI. ix. 4.
13 *Astāvakra Saṁhitā*, 19. 3.
14 *Physics*, iv, 10: 217b, trans. W. D. Ross.
15 *Meditations*, p. iv.
16 Śaṅkara's *Bhāsya on the Vedānta Sūtras*, iv. 3. 14.
17 *Ibid.*, iii. 3. 36.
18 *Ibid.*, iii. 2. 22.
19 S. Radhakrishnan, *Indian Philosophy*, Vol. II., London, Allen and Unwin, 7th imp., 1962, p. 528, *et passim*.
20 E. Frank, *Saint Augustine and Greek Thought*, Cambridge, Mass., The Augustinian Society, 1942, pp. pp. 9—10.
21 These processes are described by Praśastapāda. When a hundred years by the measure of Brahmā are at an end, the time for this deliverance arises. To secure rest for all living beings worried by their wanderings, the supreme Lord ... desires to reabsorb all creation. The rise of this desire means the cessation of the operations of the unseen tendencies ... of all souls that are the cause of their bodies ... disruption of the atoms constituting the bodies and the sense-organs occur. When the groupings of atoms are destroyed, things made of them are also destroyed. There ensues a successive disruption or reabsorption of the ultimate material substances ... (from Radhakrishnan, *op. cit.*, Vol. II, p. 199).
22 Cp. Reyna, *The Philosophy of Matter in the Atomic Era*, Bombay, Asia Publishing House, 1962, pp. 133—136.
23 *New Pathways of Science*, p. 57.
24 Einstein-Infeld, *The Evolution of Physics*, New York, Simon and Schuster, 1938, p. 138.
25 *Ibid.*, p. 208.
26 *Ibid.*, p. 257.
27 *Ibid.*, p. 256.
28 *Ibid.*
29 As early as the *Ṛg Veda* there appears the concept of the Eternal Unity of Existence which "holds in its embrace all that has come to be", a unity in which the unchanging Reality behind the universe, what Hindu philosophers call *Brahman*, is at once the indestructible Spirit in man, the *Ātman* identical of nature — *Brahman-Ātman*, the First Principle. See, Reyna, *The Concept of Māyā from the Vedas to the 20th Century*, Bombay, Asia Publishing House, 1962, *Introduction*, p. 4, *et passim*.
30 Marsden, *op. cit.*, p. 12.
31 For a detailed description of the sheaths, see *Self-Knowledge*, by Swami Nikhilananda, Madras, Sri Ramakrishna Math, 1947, p. 81 ff.
32 Cp., Reyna, *The Philosophy of Matter in the Atomic Era*, pp. 177—178; also, *Span*, September 1966, p. 36: "The body dies a little every day".

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